Review of

Forest Administration in
British India

1904-05 to 1917-18

(including quinquennial for
1909-10 to 1913-14)

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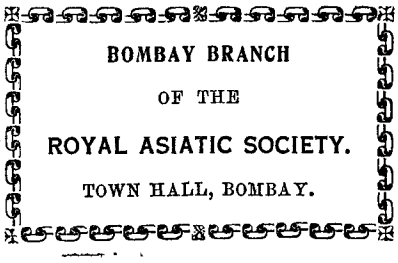

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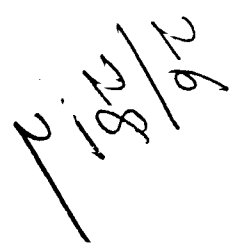

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REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

FOR THE YEAR

134397

1904-1905

BY

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INSPECTOR GENERAL OF FORESTS TO THE GOVERNMENT OF INDIA.

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REVIEW

OF

FOREST ADMINISTRATION IN BRITISH INDIA

FOR THE YEAR

1904-05.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—ALTERATION IN AREA.

[*Vide* Appendices I and II.]

THE total area of forest lands (Reserved and Leased forests, Protected and Unclassed forests) under the control of the Forest Department remained practically unaltered, being 232,941 square miles as compared with 232,701 square miles in the preceding year.

As the area of British India is 967,255 square miles (Appendix II) the forest areas under departmental control are 24·1 per cent. or nearly one-fourth of British India.

2. There were however several additions to, and exclusions from, the forest area during the year as shown below:—

(i)—Reserved and Leased Forests.

A total of 1,893 square miles were added, and 1,278 square miles were excluded, the net increase being 615 square miles; the total area at the close of the year was 92,182 square miles of which 910 miles were leased forests, as compared with 91,567 square miles, which included 909 square miles of leased forests, in the preceding year.

The following shows approximately the changes in the areas of Reserved forests in the different Provinces.

In Bengal there was a net increase of 35 square miles; of this 18 square miles was due to reservation in the Buxa Division, and the balance to the adoption of more accurate survey figures.

In the United Provinces only 8 square miles were added, namely, 4 square miles in the Kheri Division received by exchange from Amargarh and 4 square miles of leased forests in the Dehra Dun Division in consequence of the rectification of areas.

The Punjab reserved areas were reduced by 99 square miles, 110 square miles being excluded from the Shahpur Division for colonization and canal purposes. Three square miles were excluded in Bashahr by correction of areas and 14 square miles were constituted reserves in the Montgomery, Multan and Lahore Divisions.

In Assam there was a net increase of 19 square miles, 21 square miles were reserved in Kamrup, Darrang and Nowgong Divisions and 2 square miles were made over to the Rani of Bijni.

In the Central Provinces an increase of 69 square miles occurred chiefly on account of additions due to the recalculation of areas in several divisions.

Areas amounting to 829 square miles were constituted as reserves in *Burma*, chiefly in the Pegu and Southern Circles, part of the addition was due to survey corrections. About 456 square miles were excluded, of which 375 square miles were in the Southern Circle owing to disforestation in the Chin Hills. The net increase was 373 square miles.

In Baluchistan in consequence of reservations in the Loralai and Sibi Divisions the area of reserves was increased by 26 square miles.

In Madras a net addition of 184 square miles was made, whilst in *Bombay, Coorg, the North-West Frontier Province, Ajmer* and the *Andamans* the total area of reserves remained unchanged.

(*ii*).—*Protected Forests.*

During the year the area of Protected forests decreased from 9,865 square miles to 9,435 square miles; this decrease of 430 square miles was due to exclusions in Bombay of 171 square miles which were made over to the Revenue Department for management as village waste land, and 119 square miles which are to be constituted reserves; and to exclusions in Bengal of 139 square miles for cultivation, etc., and 1 square mile in the Punjab.

(*iii*).—*Unclassed State Forests and Public Forest lands.*

There was a net increase of 55 square miles under these classes of forests, the area at the close of the year being 131,324 square miles as compared with 131,269 square miles at the end of 1903-04.

3. The following statement shows the total areas of the different classes of forests under the management of the Forest Department at the close of the year compared with the areas at the end of 1903-04.

	1903-04.	1904-05.	Difference.
	Sq. miles.	Sq. miles.	
Reserved Forests	90,658	91,272	+614
Leased „	909	910	+ 1
Protected „	9,865	9,435	−430
Unclassed Forests and Public Forest lands .	131,269	131,324	+ 55
TOTAL .	232,701	232,941	+240

2.—FOREST SETTLEMENTS.

[*Vide* Appendix III.]

4. Good progress was made in Settlement work during the year. Areas amounting to 1,192 square miles (of which 790 square miles were in Burma and 195 in Madras) were finally settled and 1,052 square miles taken in hand as compared with 962 square miles and 1,519 square miles, respectively, in 1903-04.

The actual cost of settlement work during the year is not clearly stated in the Provincial Reports, but apparently an expenditure of about ₹68,500 was incurred.

5. The total area finally settled at the close of the year was 93,204 square miles (87,598 square miles Reserved and 5,606 square miles Protected forests). As the area of Reserved forests amounts to 91,272 square miles (*vide* paragraph 3 above), 3,674 square miles still remain to be settled, and

from the statistics it would appear as if these areas were almost entirely in the Berar Circle of the Central Provinces. The Conservators' reports are however conflicting as to whether forest settlements have or have not been carried out in this part of the Central Provinces, but it is certain that the forests of the Central Provinces are burdened with concessions which require definition and regulation in the interest of efficient administration and of adequate sylvicultural treatment, and it is therefore satisfactory to learn that settlement operations similar to those prescribed in the Indian Forest Act in respect of right of user are contemplated with a view to defining the privileges which the Local Administration considers necessary to the welfare of the country.

3.—Demarcation.

[*Vide* Appendix IV.]

6. At the close of the year the total length of forest boundaries amounted to 168,220 miles; of this 16,142 miles consist of natural boundaries, whilst the balance 152,078 miles require to be artificially demarcated. 130,236 miles had by the close of the year been so demarcated leaving 21,842 miles still to be demarcated. Whilst in the majority of the Provinces comparatively little work remains to be done, in others, notably the Punjab and Bombay, much of the important work of demarcation is still uncompleted. In the former Province a length of boundaries of 3,702 miles still remains to be artificially demarcated, whilst in Bombay no less than 15,886 miles, of which upwards of 10,000 miles are in the Southern Circle, still remain undemarcated. The total cost on new work during the year was ₹57,065 as compared with ₹50,072 in 1903-04, but the amount of work done, namely, 4,867 miles demarcated' compares favourably with the 2,886 miles demarcated in that year. In addition to the new work done during the year upwards of 51,000 miles of previously existing boundaries were repaired at a cost of ₹71,000, the average cost of repairs being higher than in the preceding year when 48,000 miles were repaired at a cost of ₹53,000. The importance of demarcating the State forests as soon as possible after the Settlement has been completed is obvious and it is particularly satisfactory to observe that in Burma, where the greatest amount of reservation has been carried out in recent years, forest demarcation has not been permitted to fall into arrears to any great extent.

4.—Forest Surveys.

[*Vide* Appendices V and VI.]

7. Proposals were under consideration that, with certain exceptions, the general scale of Forest Surveys in India should be reduced from 4 inches to the mile, which has generally been accepted as the standard scale, to half that scale, and that the surveys should be executed by topographical parties of the Survey of India in the course of the general survey of the districts in which the forests occur. The 2-inch surveys would when required be supplemented by 4-inch boundary surveys. No part of the cost of surveys executed under this arrangement would be chargeable to the Forest Department. It is anticipated that this new system will gradually be introduced.

8. Four survey parties were employed on Forest Surveys during the year, one in Madras, one in Bombay, and two in the Bengal Presidency.

The outturn was as follows:—

	Sq. miles.
Bengal Presidency	1,823
Madras	750
Bombay	785
TOTAL .	3,358

9. The total cost of Forest Surveys was R5,21,645 as compared with R4,95,401 for 1903-04. The increase is principally due to the incidence of a charge of 4 per cent. for instruments which has been added for the first time to the cost under the orders amalgamating Forest Surveys in India.

The cost rates continued high in Madras and in Burma owing to the physical difficulties of the country under survey, the increasing distance from the base of operations, and in Madras owing to the continued ill-health of the establishment.

10. Good progress was made in the preparation and publication of maps; 497 maps were published including 13 working-plan and 7 other special small-scale maps. Fifteen thousand six hundred and twenty-two maps, more than half of which were coloured, were distributed. A certain number of each forest map edition published is now printed on cloth, and these have been found serviceable for field work and are gradually taking the place of the mounted copies.

11. Details of the surveys carried out in the various Provinces are given in the following paragraphs:—

Bengal.—A detachment of No. 9 Party completed the survey of the forests in the Angul District, an area of 232 square miles, on the 4-inch scale at a cost of R76 per square mile.

Five surveyors were also placed at the disposal of the Divisional Forest Officer of Palamau for the purpose of completing the survey of the boundaries of the mica mine leases in Koderma.

Sixty-three maps were published during the year. The expenditure on Forest Surveys for the year amounted to R27,150 of which R19,854 are debitable to the Forest Department.

The only remaining forests for which large scale surveys are at present required are the extensive reserves in the Sunderbans, and it is probable that this work will be entrusted to one of the Revenue parties of the Survey of India now working in the Province.

Assam.—The 4-inch detail survey of the Garo Hills, Kamrup, and Nowgong Divisions was, with a few unimportant exceptions, completed, an area of 148 square miles having been surveyed at a cost of R85 per square mile. Triangulation and Traversing in advance was also carried out in Darrang and Sibsagar.

Two maps were published during the year.

The total expenditure on Forest Surveys amounted to R30,759 of which R21,784 are debitable to the Forest Department.

The advance programme consists of the survey of the Darrang Reserves on the 2-inch scale.

United Provinces.—No surveys were done during the year, but an expenditure of R974 was incurred on the preparation and publication of second editions of maps of the Pilibhit and Kumaun-Garhwal series.

It is proposed to survey the leased Chir forests in Tehri-Garhwal and the Surai-Banbasa Reserve in Pilibhit next season which will complete the survey of Forest Reserves in the United Provinces.

Punjab.—One hundred and six square miles in Jhelum and Lahore were surveyed at a cost of R3,204 of which R2,267 are debitable to the Forest Department. Eight maps were published during the year.

The boundary survey of the Rakhs of the Salt Range in the Shahpur District will be taken up next season and this will complete Forest Survey operations in the Punjab for the present.

North-West Frontier Province.—One hundred and fifty-six square miles were surveyed in the Hazara District at a cost of R26 per square mile. Four maps were published during the year. The total cost of Forest Surveys amounted to R4,720 of which R3,342 are debitable to the Forest Department.

Central Provinces.—The only field work done in the Central Provinces was the triangulation and traversing of certain forests in Berar in preparation for their detail survey on the 2-inch scale : this survey has now, however, been abandoned as it is considered that the 2-inch topographical survey which is now in progress will suffice for forest administrative purposes supplemented by a 4-inch survey of the boundaries of A and B class forests.

Seventy-two maps were published during the year. The total expenditure on Forest Surveys amounted to R7,930 of which R5,614 are debitable to the Forest Department.

Burma.—One thousand one hundred and eighty-one square miles were surveyed on the 4-inch scale chiefly in the Lower Chindwin, Katha, and Mu Divisions of the Northern Circle and in the Mandalay, Ruby Mines, and Yaw Divisions of the Southern Circle. The average cost rate was R120 per square mile, but the rates as usual varied according to local conditions.

All 4-inch surveys which are deemed urgent and necessary will be completed next season, and it is probable that for the remaining forests 1-inch or 2-inch surveys will suffice.

One hundred and two maps were published during the year.

The total expenditure on Forest Surveys amounted to R2,16,569 of which R1,52,114 are debitable to the Forest Department.

In Coorg, Ajmer-Merwara, Baluchistan, and the Andamans no surveys were made by the Forest Survey Branch.

Madras.—Seven hundred and fifty square miles were surveyed on the 4-inch scale in Ganjam, Godavari, South Canara, and North Coimbatore. The cost rates averaged R125 per square mile.

Sixty maps were published during the year. The total expenditure on Forest Surveys amounted to R1,08,898 of which R76,229 are debitable to the Forest Department.

The advance programme provides for a continuation of a 4-inch detail survey principally in the districts mentioned above, and for triangulation in Malabar and the Nilgiris with a view to a topographical survey on the 2-inch scale.

Bombay.—An area of 785 square miles was topographically surveyed including 598 square miles on the 4-inch scale in Khandesh, Satara, and Nasik, and 187 square miles on the 8-inch scale in Thana.

One hundred and eleven maps were published during the year.

The total expenditure on Forest Surveys amounted to R78,473 of which R55,009 are debitable to the Forest Department.

The programme for next season provides for the completion of Forest Surveys in Thana and Satara and for their continuation in Khandesh.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation of Management.

Working-Plans.

[*Vide* Appendices VII, VIII and IX.]

12. The following progress was made in the compilation of working-plans in the provinces outside the Madras and Bombay Presidencies during the year under review.

In addition to the 3,856 square miles for which the preparation of plans was in progress 1,776 square miles were also taken in hand during the year. Plans for 2,344 square miles were completed and finally sanctioned, the largest area for which plans were compiled being in the Punjab and Bengal.

At the close of the year the total area worked in accordance with the prescriptions of sanctioned plans amounted to 27,318 square miles.

13. The progress made during the year in the preparation of working plans in the various provinces was as follows:—

Bengal.—Working-Plans for the Singhbhum and Kurseong Reserved Forests (725 and 107 square miles respectively) were sanctioned by the Local Government during the year, a revised plan for the Sundarbans Division (3,833 square miles) was sanctioned for a period of three years, ending with 1905-06, as a temporary measure pending the collection of information regarding the distribution of the principal species and their manner of growth. Field-work in the reserved forests of the Buxa Division, area 327 square miles, was completed. The Working-Plan of the Angul Division (251 square miles), Darjeeling (39 square miles), Jalpaiguri (177 square miles), Tista (223 square miles), Puri forests (113 square miles) were undergoing revision during the year.

United Provinces.—During the year new Working-Plans for the Lansdowne reserve (18 square miles), the Cantonment forest, Naini Tal (1 square mile), and the Dehra Dun Working-Plan (278 square miles), received the sanction of Government; and Working-Plans for the Municipal forest at Naini Tal (2 square miles), the leased deodar forest in Tehri-Garhwal (78 square miles), the Cantonment Woods at Chakrata (6 square miles), and the Mussoorie Municipal and the Landour Cantonment Woods (5 square miles), were completed. In addition preliminary proposals relating to the preparation of new Working-Plans for the Bahraich forests (334 square miles) and for the forests of the Saharanpur Division (295 square miles) were submitted during the year. Proposals for the revision of the Working-Plan for the Nawabganj forests (21 square miles), Gonda, were under preparation.

Punjab.—Sanction was conveyed during the year to a Working-Plan for the forests of the Kangra Division (1,230 square miles). A Working-Plan for the *Keonthal* State forests was completed during the year, and plans were under preparation for the reserves of the Sutlej (165 square miles, and Pabar (146 square miles) valleys.

Burma.—Working-Plans for the Plains forests of the Rangoon Division (83 square miles), and for the Ziyaing-Mehaw reserves (39 square miles) were sanctioned during the year; and Working-Plans are reported to have been completed for the Hill forests of the Rangoon Division (188 square miles), the South-Zamayi (229 square miles), the Satpok, Sitkwin, Thindawyo (about 21 square miles), the Aingdon-Klin and adjoining reserves (57 square miles), and for the Nahan reserves (248 square miles). Progress was also made in the preparation of Working-Plans for the East Yoma, Satsuwa and Tindaw reserves (133 square miles) in the Thayetmyo Division, and the Lower Thaungyin and Maingtha (37 square miles) reserves. In addition, preliminary Working-Plans reports were submitted for seven fuel reserves, aggregating 29 square miles, in the Tharrawaddy Division, for large areas in the Upper Chindwin and Myittha Divisions, and for the Kyauktaung Ondok (215 square miles) and Taungdwingyi forests (399 square miles).

Central Provinces.—No new Working-Plans were sanctioned during the year. Plans were under preparation for the Raigarh Range (141 square miles) and Motinala Range forests (208 square miles), and for the forests of the Saugor Division (721 square miles). A Working-Plan report for the sâl forests of the Banjar Valley Range (96 square miles) was also completed. Owing to premature decay of babul forests through the attack of a fungus (*Fomes pappiansus*), a revision of the fellings by altering the sequence coupes in the Loni-Bhongaon Working-Plan were sanctioned.

Assam.—No new Working-Plans were sanctioned during the year. A Working-Plan for the Nambor Reserved Forest (64 square miles) was completed and has been submitted for sanction; and some progress was made in the revision of the existing Working-Plan for the Goalpara Division (522 square miles). In the Garo Hills, the provisions of the Darugiri Working-Plan remained unacted on, owing to extraction being impossible until the forest is opened up by a road.

Steps were taken towards the preparation of preliminary Working-Plan reports for the reserves in the Kamrup (155 square miles) and for the sâl forests in the Darrang Division (336 square miles).

Andamans.—No Working-Plans have as yet been made for the forests in the Andamans. Preliminary reports for the working of the forests of the North Andaman Island, including Interview Island, were submitted to Government for orders; and a preliminary report on the forests of the South and Middle Andamans was under preparation.

Coorg.—The preparation of a Working-Plan for the forests of the Jainkal Range was taken in hand during the year, but owing to the continuance of the "spike" disease, the Sandal working-plan had again to be held in abeyance.

North-West Frontier.—Working-Plans for the Danga Galli Range (62 square miles), the Siran Range (47 square miles) and the Khanpur Range forests (50 square miles) were completed during the year.

Ajmer-Merwara.—The Working-Plan for the reserved forests of Ajmer-Merwara (142 square miles), excluding the Bagri-Kot Kirana Forest (2 square miles), was revised and sanctioned during the year.

14. The following progress was made in the Madras and Bombay Presidencies:—

Madras.—Working-Plans for 1,046 square miles were sanctioned by the Board of Revenue during the year, and plans for 1,214 square miles were under preparation at its close. The Working-Plans sanctioned during the year relate to the following areas, namely, the Surada and Bugada Range; the Mohiri hills; the Kondapalli forests; the Adoni, Atur, Kalyandrug, Pamidi Ranges; the Venad and Pernad reserves; the Chandragiri ranges; the Vellore and Tiruppattur Sandalwood forests; the Salem East Range; the Baindur and Ajjarakadu reserved forests; and the Beypore Tope reserve. Supplemental Working-Plans were also sanctioned by the Board for the Ambur forests.

Working-Plans were under preparation for the following areas:—

Guntur (2 square miles), Kurnool (319 square miles), Bellary (38 square miles), Vizagapatam (118 square miles), Chingleput, South Arcot, South Salem, Madura (225 square miles) and Tinnevelly Districts (38 square miles).

Preliminary reports were prepared for the forests of the Peddapur, Rajahmundry, Rapur, Hosur, Dharmapuri Ranges, and for the Pullampet Reserve. The total area of forest reserves for which Working-Plans have been completed and approved by the Board now amounts to 6,124 square miles; and plans for an area of 3,481 square miles were in course of compilation during the year.

Bombay.—During the year Working-Plans for 2,348 square miles were in course of preparation. Plans were finally sanctioned for the Talasri, Mokhada, and Haliyal forests; for the Deomogra reserve; for the Akola and Rajur Range teak reserves; and for the Karwar fuel reserves; a total area of 365 square miles.

The total area now controlled by sanctioned Working-Plans amounts to 4,535 square miles.

15. The total area for which Working-Plans are now in force throughout India is as under:—

	At commencement of year.	Added during the year.	Total.
	Sq. m.	Sq. m.	Sq. m.
Bengal	24,974	2,344	27,318
Madras	5,078	1,046	6,124
Bombay	4,170	365	4,535
Total .	34,222	3,755	37,977

16. The Military authorities having expressed a wish that Cantonment forests should be provided with Working-Plans, steps have been duly taken to give effect to this desire and already plans have been compiled for several such areas.

It however appears advisable that where Cantonment Forest Working-Plans are made, their working according to the prescriptions of the Plan should be controlled by the Forest Department so that continuous treatment may be secured. In some cases the amount of grazing that has to be permitted over these small areas would appear to be the most wasteful form of utilization that could be devised. The yield of forest-grazed milch cattle is much lower than that of stall-fed animals, while the sanitary surroundings of the latter could be as easily, if not more so, supervised in the latter than in the former case. The question therefore of cutting, at the proper season of the year, the grass crop of Cantonment forests and storing it for future use and also of stocking a part of the area with exotic fast-growing species, such as wattle and eucalyptus, is well worthy of consideration, for not only would the yield in fodder and fuel be thereby much increased, but also the danger of fire which is so much to be dreaded in Cantonment forests would be minimized.

2. Communications and Buildings.

[*Vide* Appendix X.]

(*a*) *Roads and Bridges.*

17. Good progress was made during the year in the construction and maintenance of communications. The total expenditure on roads and bridges amounted to R2,86,374 of which R1,67,245 was expended on new works and the balance R1,19,129 on repairs, as compared with R1,70,619 for new work and R1,13,594 for repairs in the preceding year.

In Bengal much was done to improve communication, especially in the Singbhum Division, and it is satisfactory to note that it is found that the cost of the forest roads generally repay the cost of the construction at least during the first few years of use.

In the United Provinces about the same expenditure was incurred on roads as in 1903-04. Some R13,000 was spent on the construction of a tramway and fuel-shoot to supply Chakrata with fuel.

In the Punjab progress was somewhat impeded by the effects of the Kangra earthquake. An important scheme for the construction and maintenance of roads in the Bashahr State was drawn up during the year.

The amount spent on roads and communications in Burma, was R24,308 on new works and R11,123 on repairs. These amounts appear inadequate considering the large area dealt with and as there are indications that the timber in some of the more readily accessible tracts is

almost worked out, the importance of constructing suitable communications to open out the more remote forests cannot be too much insisted on; in this regard the contemplated preparation of a road construction programme for each Circle should lead to good results.

In the Central Provinces the expenditure on the improvement of communications amounted to ₹9,433, and ₹14,660 was spent on repairs. It is reported that the construction of good fair weather roads can be very cheaply carried out, and with the extension of railways it should become possible to open up many forests which have hitherto been inaccessible to the markets.

In Madras ₹18,875 and ₹22,775 were spent on new works and repairs, respectively. It is noticed that in Godavari the cost of carrying timber by the new monorail tramway was rather high, but these devices became necessary in the absence of cheap and sufficient transport by cart.

The expenditure incurred in Bombay on communications was ₹30,426 for new works and ₹10,743 for repairs. The most important works carried out were in the Kanara Division, Southern Circle, where 14½ miles of road were constructed at a cost of ₹15,495, and in the Dangs territory, Northern Circle, where roads were made at a cost of some ₹3,700. Comparatively small expenditure was incurred in Sindh, but the advisability of providing suitable roads for export of forest produce is engaging attention.

(*b*) *Buildings.*

18. The total expenditure on buildings and repairs amounted to nearly 4⅕ lakhs (of which about 3 lakhs was for new works) as compared with a total of about 3½ lakhs in the preceding year. And it is satisfactory to observe that in almost every Province increasing attention continues to be paid to the necessity of providing officers and subordinates with suitable accommodation, most of the expenditure of the year being directed towards this object.

Of the 3 lakhs expended on new works, Burma spent ₹60,000, the United Provinces ₹52,500, Bombay ₹50,500, Madras ₹45,000, and the Central Provinces ₹35,000. In Bengal the expenditure amounted to ₹27,000; the provision of adequate quarters for subordinates received special attention, the expenditure in this respect being 70 per cent. higher than that in 1903-04.

In the United Provinces it has been arranged to draw up a scheme which will ensure systematic improvement during the next five years, and the preparation of similar schemes in other Provinces appears to be worthy of consideration.

(*c*) *Miscellaneous Works.*

19. Under this head an expenditure of ₹64,959 was incurred as compared with ₹52,071 in the preceding year, several useful works were carried out, such as the deepening and construction of tanks for watering cattle, the clearing of obstructions from floating streams, the construction and repairs of wells and the cleaning of compounds and camping grounds.

The largest amount (₹14,500) was spent in the Central Provinces where much attention was paid to the improvement of the water-supply in reserved forests, and to the construction of tanks to provide water on grazing areas during years of drought.

3. Protection of Forests.

(*a*) *General Protection.*

[*Vide* Appendices XI and XII.]

20. During the year under review 10,209 cases were decided in Magisterial Courts, and 43,842 cases were compounded by Forest Officers, as compared with

10,928 and 40,709 cases respectively in 1903-04. The proportion of convictions to the total number of cases decided by the Courts was 89·0 as compared with 88·4 in 1903-04 and 86·9 in 1902-03, and this would seem to indicate an increase of care in the preparation and prosecution of such cases.

The total number of cases in which the offenders remained undetected was 7,107 as compared with 7,410 in 1903-04. As usual the greater number of these cases were in respect of injury by fire to protected forests and the unauthorised felling or appropriation of wood and minor forest produce.

With the exception of Bombay the total number of forest offences taken into Court and compounded during the year shows no very important variations from that recorded in 1903-04.

In Bombay the number of offences increased from 19,462 to 20,983, affecting each of the 4 circles. Whilst increased supervision may account in some measure for the larger number of offences reported, especially in the case of detection of unauthorised removal of forest produce, other causes, such as drought, and scarcity of fodder would as a rule probably cause, to at least an equal degree, an increase in number of forest offences. It might therefore have been expected that in consequence of drought there would have been an increase in forest incendiarism with the object of improving temporarily the grazing supply, but although in some of the Circles there was an increase in the number of offences under this head, on the whole there was a satisfactory decrease from 3,209 cases in 1903-04 to 2,436 in the year under review.

21. The following statement shows the forest offences of 1904-05 compared with the average number of offences of 3 preceding years for the whole of India.

	Average 1901-02 to 1903-04.	In 1904-05.
Injury by fire	4,548·33	3,998
Unauthorised felling, or removal of forest produce.	29,639·33	32,868
Grazing without permission	19,174·00	22,310
Other offences	3,679·33	4,359
TOTAL .	57,041	63,535

(*b*) *Protection from fire.*

[*Vide* statement below and Appendix XIII.]

22. There was an increase of 1,462 square miles in the total area under systematic fire protection during the year, 39,464 square miles being attempted as compared with 38,002 square miles in 1903-1904 and of this 95·4 per cent. was successfully protected as against 92·2 per cent. in the preceding year. In the Bengal Presidency the percentage remained the same at 96·2, in both Madras and Bombay there was an improvement, the figures of the year being 97·6 per cent. and 91·7 per cent. as compared with 90·5 and 83·6 in the preceding year.

22. The following statement shows the results of protection from fire during the year under review, and during the preceding five years :—

Province.	Area in square miles.		Proportion of forests under fire protection to total area of reserves.	Percentage of failure to area attempted to be protected.	
	Attempted.	Protected.		Average of past five years to 1904.	1904-05.
Bengal	2,239	2,229	37	4·6	·4
United Provinces	3,219	3,211	79	1·9	·2
Punjab	(a) 865	853	37	1·3	1·4
Burma	8,268	7,636	40	11·5	7·6
Assam	(b) 999	(c) 990	26	3·2	·9
Central Provinces including Berar	(d) 7,920	(e) 7,693	35	3·1	2·9
Coorg	208	206	51	6·1	1·0
North-West Frontier	83	82	35	7·1	1·2
Ajmer	142	140	100	·6	1·4
Total Bengal	23,943	23,040	40	5·6	3·8
Madras	(f) 6,509	6,350	36	6·0	2·4
Bombay	(g) 9,012	8,267	67	13·2	8·3
Grand Total, 1904-05	39,464	37,657	43	7·7	4·6
„ „ 1903-04	38,002	35,007	42	7·8	7·8

(a) Excludes 2 square miles not under systematic protection.
(b) „ 196 „ „ of partially protected areas.
(c) „ 76 „ „ „ „ „
(d) „ 2,794 „ „ „ „ „
(e) „ 2,499 „ „ „ „ „
(f) „ 195 „ „ „ „ „
(g) „ 66 „ „ „ „ „

As usual the fire protective measures adopted in the *United Provinces* were the most successful, practically the whole of the protected area being preserved from fire.

In Bengal also the results were very satisfactory, casualties amounting to only ·4 of the total, and here also it is satisfactory to learn that considerable progress has been made in agreements with Native States bordering on British territory to aid and co-operate in fire protective measures.

In Bombay although the percentage of failure decreased from 16·4 in 1903-04 to 8·3 during the year under review, the results obtained in the Southern Circle were discouraging, the areas burnt continued to increase and the valuable teak forests were much damaged by fire. In consequence of the repeated firing these forests are said to be rapidly deteriorating, and it is to be hoped that the more vigorous measures it is proposed to adopt will have a salutary effect.

24. Details showing the number of fires which occurred in each Province and their origin are given in Appendix XIII.

25. The total number of forest fires was 4,248 as compared with 5,448 and it is satisfactory to observe that the number of fires attributed to intention or malice continues to decrease, only 488 being shown under this head as compared with 558 in 1903-04 and 742 in 1902-03.

(c)—*Protection from Cattle.*

[*Vide* Appendices XIV and XV.]

26. The amount of grazing provided for in the State Forests is very large. Out of a total area of 232,941 square miles only on 37,803 square miles is grazing entirely forbidden, leaving an area of 195,138 square miles available for pasturage: in 19,356 square miles of this area, however, browsers are not admitted. During the year upwards of thirteen millions of buffaloes, cows, bullocks, goats, sheep and camels obtained grazing in the State Forests. Of these some $7\frac{3}{4}$ millions were charged for at full rates, the balance either being allowed to graze free or at privileged rates.

Although there was in some Provinces an increase in the number of cattle impounded for illicit grazing, there was on the whole a satisfactory decrease the total number impounded being 535,328 as compared with 6,10,006, the average of the three preceding years. It is in Madras and Bombay that it is found necessary to resort more largely to this method of preventing unauthorised grazing. In these Presidencies 228,322 and 250,483 cattle were impounded, only 56,523 being so treated in the Provinces outside Madras and Bombay. In Madras and Bombay considerable damage has been done to the forests in past years by semi-wild cattle; during the year, 85 of these animals were captured and sold.

(d) *Protection against injuries from natural causes.*

27. Among the more important injuries due to natural causes, with which the Forest Department has to contend are those due to frost, drought, climbers, injurious insects, wild animals, etc., and though the amount of control which can be exercised in respect of these is necessarily limited, still good progress was made in the application of measures adopted either to reduce or to avert, as far as possible, the injuries resulting from adverse climatic conditions and natural pests.

In Northern and Central India, perhaps the most marked damage was caused by the phenomenal frosts of February 1905 and it will probably be many years before the forests which suffered fully recover from the effects of the severe weather to which they were exposed, though the appearance of the frost-bitten areas led in some instances to exaggerated estimates of the damage done and of the cost of remedial operations. The following remarks show briefly some of the steps taken in the several Provinces to guard the forests against injuries from natural causes.

In Bengal, where the rapid growth of climbers in the damp climates of the Terai and the Duars has been a constant menace to the forest crops, considerable progress was made in the eradication of these pests, nearly 60,000 acres being cleared during the year. Storms and frosts are reported to have done considerable damage, being exceptionally severe in the Hill Divisions. Following on the great storm of the previous year which caused much damage in the Mina Ghat and Buxa forests, there occurred an unusually severe attack by boring insects, standing trees as well as windfalls being badly injured.

Wild elephants are reported to have been particularly destructive in the Tista Division, while deer gave so much trouble in coupes under regeneration in the Darjeeling Division that measures had to be taken for their destruction,

In the United Provinces the exceptional frost was responsible for a large amount of damage. It is estimated that 75 per cent. of the Dehra Dun forests were more or less affected while the sub-montane forests suffered also severely. The forests in the hills were less affected, and it is stated that as is sometimes the case the seedling of various conifers was more profuse in consequence.

The Oudh forests appear to have suffered less than those further east from the frost and they show signs of satisfactory recovery, but it is too early to judge of the permanent results of the injury.

In the Punjab the extreme cold not only led to the death of many trees and seedlings, but the damage caused increased here as elsewhere the risk of injury by fire.

The earthquake of the 4th of April was followed by several landslips; it is however stated that neither the frost nor the earthquake were unmixed evils, for the former had the desirable effect of killing much of the injurious growth of climbers, whilst the latter, necessitating the provision of large supplies of sawn timber for the relief of sufferers, afforded an opportunity for clearing extensive tracts in Kulu of blue pine, and of replacement of this species by the more valuable deodar.

In Burma good progress was made in the cutting of climbers, this work being mostly carried out in accordance with the prescriptions of the working-plans in force.

Some attacks by the larvæ of Hyblæa puera and other defoliators occurred, but the amount of damage done does not appear to have been very great.

In the Central Provinces the forest growth, and more especially the coppice shoots suffered severely from the frost. Opportunity was taken to prepare lists showing the comparative frost resisting powers of different species.

Considerable damage was caused by wind in the Betul Division, where during the progress of a storm a large number of trees over a belt of forest a mile wide were uprooted or broken down.

Damage by insects and wild animals is reported to have occurred in all circles. In order to check the damage done by pigs and nilghai in some of the Berar forests, the shooting of these animals has been freely permitted in the localities principally affected.

In Coorg there was a diminution in the number of sandal trees attacked by the spike disease, but the disease still continues to cause great mortality and its prevalence to be a matter of grave anxiety, since it is from sandalwood that the main forest revenues of Coorg are derived. A redeeming feature is that the area of infection does not appear to have undergone any extension.

In Madras insects and fungi appear to have been the chief sources of injury to the forests. In Ganjam a root fungus disease (Trichosporium vesiculosum) is reported to have caused much damage and the disease continues to spread. Sample plots are now under observation, meanwhile affected trees are being felled and rooted up to check the spread of the disease.

In South Arcot the Casuarina plantations were as usual infected with bark-eating borers. Fortunately little damage was done, but there was an increase in the number of Casuarina trees killed by root fungus and as a defence against its spread, prompt felling, the careful extraction of roots and removal of diseased trees, and digging of trenches around affected patches have been prescribed.

Frost of unprecedented severity is reported as having caused considerable damage to *the Bombay* forests more particularly in Sindh. The devastations of locusts are here a constantly recurring source of damage. In the Central Circle a campaign for their destruction was undertaken by the Revenue Department assisted by the Forest Department; nearly 224 maunds of locusts were killed in the Ahmednagar Division alone, at a cost of upwards of two thousand rupees.

A certain amount of climber cutting was done by the Forest Subordinates, but in some of the coupes of the Northern Circle, owing to want of cleaning, an impenetrable mass of the Cowitch Creeper has grown up, and it was found that in November the coolies could not be induced to face the stinging hairs of the pods, and clear the coupes. It will be necessary to attempt this work at an earlier season of the year when the pods are less formidable.

28. Among the investigations made during the year by the Forest Entomologist, in connection with the damage caused by insect pests may be mentioned the study of the bark beetles (*Scolytidæ*) infesting the Zhob Chilgoza pine forests. It was found that a considerable number of trees in the Shergali and Takht-i-Suliman tracts were being killed by the attack of different species of bark beetles—(*Polygraphus, Phlœsinus* and *Pityogenes*). The most important beetle was found to be a new species of *Polygraphus,* nearly related to the *P. major* and *P. minor* which infest the blue pine and spruce in the North-West Himalayas. Recommendations were made for the protection of the forests and for reducing the numbers of these destructive beetles.

Investigations into the life histories of some bark and wood borers of the Juniper and Olive were also made in Baluchistan. The borer infesting the Quetta avenues was studied and the attacks of the insect were found to be on such a large scale that it was necessary to recommend a heavy felling of dying trees. It was ascertained that this borer beetle, which insect existing in thousands in Quetta, had only previously been reported from Central Asia (Turkestan). It appears that it is also found in Kandahar, and probably throughout Afghanistan generally.

Investigations were made in the United Provinces into the spread of the *Monophlebus* scale insect of the sâl and further studies were made in the life histories of the *Sinoxylon* wood boring beetles that attack the sissu in the Changa Manga Plantation.

An examination was made of the damage caused by the dangerous *Scolyted* bark borer *Sphærotrypes* to the sâl trees which suffered from frost in the Dehra Dun forests.

As the outcome of investigations by local forest officers throughout India a large number of specimens of destructive insects were sent to the Forest Entomologist for examination and report.

Among the insects identified were *Hoplocerambyx spinicornis* which is attacking the sâl trees of Balaghat, and *Gunda Sikkima,* an insect defoliating rubber trees in Assam. The Forest Officer of Nellore reported that Casuarina trees were dying under the attacks of *Arbela tetraonis* and *Clania Cramerii,* the prompt identification of these insects enabled methods of protection to be introduced.

In South Canara it was found that teak were being defoliated by *Pyrausta machæralis* and the mahogany tunnelled by boring insects.

4. Silviculture.

(*a*) *Natural Reproduction.*

29. The areas under the management of the Forest Department are so extensive that it necessarily follows that the amount of artificial re-stocking which can be done must be comparatively small, and it is therefore on natural reproduction that the forester must almost entirely rely for the regeneration of the forests entrusted to his charge. It is satisfactory to learn from the various Circle reports that on the whole, where adequate protection is possible, natural reproduction is sufficiently good to ensure the maintenance of the forests if judicious assistance be afforded.

30. *In Bengal* reproduction of sâl, the most valuable species in this Province continues to be very satisfactory in the comparatively dry forests; in Singhbhum in particular, it is said that hundreds of square miles of slopes, which formerly contained nothing but stunted and generally unsound sâl of great age, are now covered with a promising young crop, and it seems certain, that if these forests are successfully protected from fire, they will eventually yield enormous quantities of timber to meet the requirements of a number of districts. In the damper forests however whilst fire protection has in some cases caused the establishment of well stocked forests of the desired species, it has also encouraged the growth of many worthless trees and it will be necessary to adopt measures to aid the sâl against these undesirable competitors. In the hill forests, especially in Darjeeling, natural reproduction is absent or deficient in the areas open to grazing and there is little doubt that unless something is shortly done to reduce the present excessive grazing, the future of these forests will be imperilled. In the dry forests of *United Provinces* reproduction is generally speaking very satisfactory and the beneficial effects of fire conservancy appear to be particularly marked. The natural regeneration of the valuable deodar in the Punjab is satisfactory, and that of the blue pine is said to be all that can be desired. Oak is less satisfactory and its regeneration in some areas such as Kangra is considerably retarded by grazing. The natural reproduction of teak in Burma, especially in fire protected areas, is by no means as good as could be wished, and it is suggested that the scarcity of young teak in these protected areas in many if not most cases is due to the absence of properly executed improvement fellings, which it is considered should be heavy and frequent, but the execution of such operations is hampered by the want of an adequate staff and sometimes also by the scarcity of labour. *In the Central Provinces* natural reproduction was impeded by the dryness of the season in the Berar Circle and by frost in the Northern Circle. In the Southern Circle, however, the regeneration was good, save in the case of teak. In the dry high level sâl forests of Assam where there is an undergrowth of grass sâl reproduction is greatly aided by fire protection, but it is found that in the low level forests, where the undergrowth consists largely of evergreen shrubs there is a tendency for the sâl to be supplanted by inferior species, and experiments are being undertaken to ascertain in how far it is desirable to modify methods of fire protection at present adopted.

31. *In Madras* natural reproduction on the whole appears to be satisfactory, and the report for the year contains much interesting detailed information. In some forests excessive grazing and the dryness of the soil prevented sucessful reproduction.

32. From the *Bombay* reports it appears that natural regeneration by seed of teak and other species is not very satisfactory, though regeneration by coppice is good. Considerable attention was paid to the study of the natural reproduction of teak in the Kanara forests. It is found that in the areas where the rainfall is heavy the conditions are less favourable for teak than for other species, but it seems certain that much improvement can be effected by fostering the growth of natural seedlings by ordinary silvicultural operations.

(*b*) *Artificial Reproduction.*

[*Vide* Appendix XVI.]

33. The areas of regular and taungya plantations at the close of the year were 73,117 acres and 70,637 acres, respectively, or a total of 143,754 acres, as compared with a total of 132,099 acres in 1903-04.

It is in Burma, Madras, and Bombay that the most extensive plantations have been created, there being 75,839 acres of taungya and regular plantations principally teak and cutch, in Burma, while in Madras there are, including topes, 41,127 acres of plantations, casuarina, mahogany, divi-divi,—teak being among the more important species planted, and in Bombay 13,537 acres of plantations of babul, casuarina, etc., have been created.

34. The following shows briefly the progress made in the various Provinces during the year under review.

In Bengal 40 acres were planted up with Cryptomeria and other species. The total area of plantations now amounts to 1,626 acres. Blanks in the Tista rubber (*Ficus elastica*) plantations were filled up, and arrangements were made for further planting of teak in South Puri. The locality is reported to be very favourable for teak, and it is hoped that it will be possible in time to establish a teak plantation of 2,000 to 3,000 acres at a moderate cost.

An addition of 55 acres was made to the plantations in the *United Provinces*, the total area now being 3,427 acres. Pinus longifolia, wattle, eucalyptus and deodar were planted.

No additions were made to the existing areas (977 acres) of plantations in the *Punjab*.

In Burma during the year the area of teak taungya plantations was extended by 2,330 acres and 650 acres of new cutch taungyas were formed. The total area of taungya plantations, consisting mostly of teak, cutch and pynigado now amounts to 69,673 acres, and there are in addition regular plantations of teak, rubber (still in the experimental stage), etc., amounting to 6,166 acres. It is pointed out however that owing to the want of sufficient staff the necessary attention to these plantations cannot in some divisions be fully afforded, and it is considered undesirable further to extend plantations beyond the capacity of the existing staff to carry out the necessary cleanings and thinnings.

In Assam, the Charduar rubber (*Ficus elastica*) plantation was extended by 40 acres, and 38 acres in Lakhmipur were planted up with the Dholpatta (*Rhynchodia sp.*) rubber yielding climber.

The only regular plantations in the *Central Provinces* are the 25 acres of bamboo plantations at Yeota in Berar. No extension of plantations was made during the year.

In Coorg, 15 acres of taungya plantation were added during the year, the total area of sandal, teak and other plantations now amounts to 3,019 acres.

No additions were made to the existing 94 acres of plantations in *Ajmer*, nor to the 33 acres, mostly of fruit plantations, in *Baluchistan*.

In the Andamans, 170 acres of padauk and mangrove plantations were added, the total area of plantations now amounts to 860 acres.

In Madras, the plantations and topes were extended by 676 acres but areas aggregating 1,744 acres were excluded, the total area at the close of the year being 41,127 acres.

It is not very clear from the *Bombay* reports what the actual area of existing plantations now is. In the report for the Northern Circle it is stated there are no regular plantations whilst in the form attached to the report an area of 3,677 acres is shown under regular plantations in that Circle. It appears that the total area of plantations in the Bombay Presidency at the close of the year was 13,537 acres.

35. Excluding the expenditure incurred on the rubber plantations of Tenasserim which are considered to be still in the experimental stage, and are referred to in paragraph 33, the total expenditure on plantations throughout India amounted to ₹1,32,008.

36. Cultural operations were carried out in most Provinces. Such operations differ from regular and taungya plantations in that they constitute special works, such as the filling of blanks in forest land, the sowing and planting up of areas on which bamboo has flowered, etc.

In Bengal, among other cultural works upwards of half a lakh of transplants were put out and the work of planting species such as tun, lampatia (*Duabanga sonneratioides*), etc., yielding good box planking was extended.

In the United Provinces, blanks were filled up with oak and other species, khair and shisham seed were sown in blanks on the Ganges Islands, a large quantity of deodar were put out in the valuable Jaunsar Forests and in most Divisions suitable cultural operations were undertaken.

In the Punjab, progress was made in all Divisions in the filling up of blanks, most success being obtained in the planting out of deodar and sowing of oak.

The cultural operations in *Burma* consisted mainly of the sowing of teak in areas where bamboo had flowered and the dibbling in of teak seed in blanks; the results were fairly successful.

Save in *Berar* little work appears to have been done in the *Central Provinces*. In Berar where the agri-silvicultural method of raising forest seedlings with agricultural crops is being attempted, 149 acres were added to the area under treatment. Babul and teak were sown over other areas aggregating some 850 acres.

In Madras, a variety of cultural operations were carried out including sowing of bamboo, mangrove, babul, sandal and many other species. The operations for reclaiming the sandy waste called Teri were continued, blanks being filled up, and it is stated that a marked advance has been made in reclaiming the shifting sand of which the reserve is composed. As usual in *Bombay* a large quantity of young plants were put out, upwards of half a million plants were raised in the Central Nursery at Manjri, and in many of the Divisions large quantities of plants were reared and transplanted in the forests.

37. The following table shows the amounts spent in the different Provinces on cultural operations :—

	₹
Bengal	6,447
United Provinces	2,782
Punjab	8,920
Burma	8,707
Central Provinces	3,571
Assam	5
Coorg	87
North-West Frontier Province	754
Ajmer	...
Baluchistan	13
Andamans	...
TOTAL	31,286
Madras	7,045
Bombay	10,212
GRAND TOTAL	48,543

(*c*) *Operations for the improvement of the growing stock.*

38. These operations comprising thinnings, improvement fellings, girdlings, cleanings, and weedings are necessary in the interest of the growing stock in order to enhance its future value and differ from regular exploitations

in that the outturn is more or less unsaleable. The following shows briefly the work done during the year.

In Bengal weedings and cleanings were made in several of the felling coupes of previous years, and in Angul, in addition, the cutting back of sâl saplings injured by drought were continued, 4,450 acres being operated on. The results of similar operations in the preceding year are reported to be favourable.

Thinnings and cleanings and the cutting back and girdling of inferior species interfering with the growth of the more valuable species were continued in the *United Provinces.*

In the Punjab similar works were carried out, and improvement fellings to assist the growth of deodar were made.

Improvement fellings over some 25,000 acres were made in Burma, but the want of sufficient staff is opposed both to the execution of sufficiently extended operations to aid the growing stock as well as to the satisfactory completion of such work as is attempted.

In the Central Provinces cutting back of unpromising growth, girdlings of inferior species and weedings and thinnings were among the works undertaken during the year.

In Assam nothing is reported to have been done during the year with the object of improving the growing stock.

In Madras thinnings, prunings and improvement fellings were carried out in some divisions, and *in Bombay* thinnings, weeding of babul coupes, and the removal of trees interfering with teak are among the works recorded during the year.

39. In general, though in several provinces a considerable amount of useful work was done with the object of aiding an improving the growing stock, still it is evident that insufficient establishment, or labour, prevent in many Provinces sufficient attention being paid to this important work.

(*d*) *Experiments.*

40. In the *United Provinces* seeds of several exotic species were experimented with, the greatest success being obtained with the American Hardy Catalpa, 2,000 out of 2,500 seeds that were sown having germinated. In the hills eucalyptus and Australian wattle promise well, the latter especially.

Experiments in the *Punjab* met with varying success. Seed of the Preng bamboo (*Arundaria Hookeriana*), English oak, and several American species were sown, but it is too early to judge of the results. Both the Pinus Pinaste and China oak planted in Simla in previous years are dying out, though the former still thrives in Chamba. In *Burma* the Mergui Rubber Plantation was extended during the year by 819 acres at a cost of ₹11,460. It is stated that the success of the plantation does not yet appear to be assured; much damage has been caused by deer in spite of the precautions taken, the hevea canker fungus (*Nectria sp.*) has appeared in some places, and caused considerable damage, destroying the seed crop and retarding the growth of young plants; the appearance of this disease is of serious importance. The advice of the Cryptogamic Botanist to the Government of India in regard to the treatment to be adopted is being followed. The expenditure up to date on the plantation and experimental rubber garden has been about 1¼ lakhs, the areas stocked being about 2,500 acres. During the year 793 lbs. of rubber were sold in London at an average price of ₹3-12-8 per lb.

Experimental sowing of other rubber yielding species including Castilloa elastica, *Funtumia elastica*, etc., were made, the former germinating very well. The attempt to introduce sissu in the Northern Circle has entirely failed, but experiments with other exotics in the various Circles have been fairly successful.

In the *Central Provinces* further experiments were made in the introduction of andal. An experiment was made to ascertain if a profitable industry could be started in the manufacture of rusa grass oil, but the results were not

encouraging. The extension of lac production was proceeded with in Balaghat and the cultivation of tussar was continued in North Chanda and Bhandara. A number of interesting silvicultural experiments were also made during the year.

In *Madras* a large number of experiments were made with exotics and other plants, including several species of rubber, bamboos, mahogany, etc.

Experiments were carried out in *Bombay* to ascertain the success in the germination of teak under varying circumstances. Seeds of exotics, including camphor were sown, and the measurements to determine the relative depth of water in wells situated inside and outside the forest with a view to obtain information regarding the effect of forests on the height of subsoil waters were continued.

5. Exploitation.

(*a*) System of management.

41. The silvicultural systems in force in the several provinces vary according to the class of forests and the demand for forest produce. In the sâl, teak, and deodar forests the selection method is usually adopted, though with the two former species local convenience sometimes necessitates coppice fellings being prescribed. For some of the coniferous forests the uniform method has been introduced with success. But in consequence of the maltreatment to which the majority of the State forests has been subjected in former years, a provisional treatment of improvement fellings has often to be resorted to before it is considered practicable to introduce a permanent method. The numerous working-plans in force prescribe the various systems of exploitation, and generally speaking the detailed prescriptions of working were worked up to in every Province, though absence of demand and other reasons prevented in some cases these being carried out in their entirety.

(*b*) Agency of exploitation.

[*Vide* Appendix XVIII.]

(*i*) *Departmental Agency, and* (*ii*) *Purchasers.*

42. It is desirable that as far as possible forest produce should be extracted by purchasers rather than by departmental agency, but it is not always possible to obtain purchasers on these terms and the removals of timber, fuel, bamboos and minor produce by Government Agency though annually decreasing, is still large. During the year under review, out of the total outturn of 66 million cubic feet of timber, 10 millions were extracted by Government agency, 51 millions by purchasers, 2 millions by free grantees, and 3 millions by right-holders.

Of the total outturn of fuel, which amounted to 185 million cubic feet, only 23 million cubic feet were removed by Government, purchasers, right-holders and free grantees extracting the balance.

Practically the whole of the yield of bamboos is removed by purchasers, right-holders and free grantees, only 1½ millions out of the outturn of 215 million bamboos being removed by Government.

The same may be said of minor produce (including grass and grazng) the value of the produce removed by Government being only 2½ lakhs of rupees out of a total of 58 lakhs.

(*iii*) *Rights and privileges.*

43. The amount of the different classes of produce removed from the forests in satisfaction of rights and privileges is as follows:—

4¾ million cubic feet of timber,
56 „ „ „ fuel,
and 17 millions of bamboos,

while the value of the minor produce (including grass and grazing) amounted to 18 lakhs of rupees.

(*iv*) *Free grants.*

44. As usual in all provinces free grants of building timber, etc., were made to villagers to enable them to rebuild their houses destroyed by fire, flood, etc. Free grants of forest produce were also made for many works of public utility, especially in Burma where considerable quantities of teak and other timbers to the value of nearly a lakh of rupees were granted free for the erection of monasteries, bridges, village rest houses and other public works.

(*e*) Outturn and sources of forest produce.

[*Vide* Appendix XVII.]

45. The following statement shows the total outturn of timber, fuel, bamboos and minor produce from all forests—reserved, protected and unclassed—under the control of the Forest Department compared with the outturn of the preceding year:—

Presidency.		Timber and fuel.	Bamboos.	Minor produce.
		Cubic feet.	No.	₹
Bengal	1904-05	182,248,460	170,213,114	33,48,540
	1903-04	174,200,117	155,840,002	26,80,089
Madras	1904-05	23,913,211	35,788,482	13,11,82
	1903-04	20,404,621	37,025,554	12,66,664
Bombay	1904-05	45,406,605	9,259,583	11,56,559
	1903-04	38,311,607	5,646,517	5,32,358
Grand Total	1904-05	251,568,276	215,261,179	58,16,926
	1903-04	232,916,345	198,512,073	44,79,111

46. The net increase in the outturn of timber and fuel amounted to nearly 19 million cubic feet.

The important increases occurred in Bombay (7 million cubic feet), Burma (6 million cubic feet), Madras (3½ million cubic feet), Bengal (2 million cubic feet), Central Provinces (1 million cubic feet).

The Punjab, Ajmer and Baluchistan each showed an increase of under a million cubic feet, while the total of each of the United Provinces, Assam, Coorg, North-West Frontier Province and the Andamans was less by a similar amount.

The number of bamboos extracted increased by about 17 millions, the net increase in the Bengal Presidency being 14 millions, and in Bombay Presidency 4 millions, while there was a decrease of 1 million in the Madras Presidency.

There was a net increase in the value of the minor produce removed of 13 lakhs of rupees, of which the Bengal Presidency contributed 7 lakhs and Bombay Presidency 6 lakhs.

CHAPTER III.

Financial Results.

[*Vide* Appendices XIX to XXIII.]

47. The Gross Revenue, Expenditure, Surplus and the proportion of expenditure to Gross Revenue of the last 32 financial years are shown in the table below :—

Quinquennial periods.	Gross Revenue.	Expenditure.	Surplus.	Proportion of Expenditure to Gross Revenue.
	₹	₹	₹	Per cent.
1873-74 to 1877-78 . .	67,23,191	44,76,303	22,46,888	66
1878-79 to 1882-83 .	79,15,956	52,09,538	27,06,418	66
1883-84 to 1887-88 . .	1,10,59,434	71,42,382	39,17,052	64
1888-89 to 1892-93 .	1,51,86,115	82,61,176	69,24,939	55
1893-94 to 1897-98 .	1,74,50,655	96,57,496	77,93,159	55
1898-99 to 1902-03 .	1,90,22,776	1,08,42,872	81,79,904	57
1903-04 . . .	2,22,16,747	1,21,66,993	1,00,49,754	55
1904-05 . . .	2,40,29,950	1,29,67,856	1,10,62,094	54

These figures afford a very gratifying and satisfactory evidence of the sustained progress of Forest Administration from a financial point of view. There has been a steady increase in the gross revenue obtained from the State forests, with a corresponding increase in surplus whilst the proportion of expenditure to gross revenue continues to decline. The increase in gross revenue may be attributed to the fact either that the yield of the forest is increasing or that its quality is improving, while the fall in percentage of expenditure shows that much of the expenditure of the past on settlements, roads, buildings, surveys, demarcation, etc., is of a non-recurring nature, and that departmental working is gradually ceasing. During the past 32 years the gross revenue has increased from 67 lakhs to 240 lakhs, and the surplus from 22 lakhs to 111 lakhs of rupees. And there is every reason to believe that with careful management of the forests, improved communication, and the opening out and working of the remoter forest tracts, the surplus return from the forests will continue to expand in a marked degree. The figures above do not include the value of Forest Produce disposed of by free gift or at reduced rates; the value of such produce amounted during the year to over 35 lakhs of rupees, thus whilst the people in the immediate vicinity of the forests benefited directly by this amount, the burden of general taxation was lessened by the sum of 111 lakhs of rupees.

48. The gross revenue of the year under review amounted to ₹2,40,29,950 or 18 lakhs more than in 1903-04, and 50 lakhs above the average of the quinquennial period 1898-99 to 1902-03. The surplus of the year amounted to ₹1,10,62,094, or an increase of 10 lakhs over the surplus of 1903-04, and

nearly 29 lakhs over the average obtained during the period 1898-99 to 1902-03. With the exception of the North-West Frontier Province and Coorg, all Provinces showed an increase in revenue, the most marked increases being in Burma (7 lakhs) and Bombay (2½ lakhs) while Bengal, the United Provinces, the Punjab, Assam, the Andamans and Madras each yielded an increased revenue of over 1 lakh of rupees.

49. The expenditure of the year amounted to ₹1,29,67,856 as compared with ₹1,21,66,993 in 1903-04 or an increase of 8 lakhs. The most important increase in expenditure occurred in the United Provinces where the expenditure exceeded that of the preceding year by 3 lakhs, accounted for to some extent by the payment during the year of 1 lakh which should have been disbursed in the preceding year. There was an increased expenditure of 2½ lakhs in Madras chiefly due to more extended departmental fellings of timber and extraction of firewood. Bombay also showed an increase of expenditure of 1¼ lakhs, distributed over the Central, Southern and Sindh Circles. The increased expenditure in other Provinces was under a lakh, whilst the Punjab expenditure decreased by 1½ lakhs. It is interesting to note that notwithstanding the large increase in revenue of 7 lakhs in Burma the expenditure was only increased by ₹95,000.

50. The estimated value of Forest produce including timber, fuel, bamboos, and various kinds of minor produce and grass and grazing given away free or at reduced rates amounted to ₹35,00,661, as compared with ₹30,69,161 in 1903-04.

51. The following statement shows the financial results of the working of the forests, after deducting capital expenditure not yielding an immediate return :—

	₹	₹	₹
Gross Revenue			2,40,29,950
Value of produce granted free or at reduced rates			35,00,661
Total value of yield			2,75,30,611
Gross expenditure		1,29,67,856	
Deduct expenditure not yielding an immediate return —			
(*a*) Roads and Buildings	7,46,526		
(*b*) Cultural operations	4,35,761		
(*c*) Working-plans	1,04,260		
(*d*) Settlements	74,426		
(*e*) Surveys	3,67,600		
(*f*) Demarcation	1,41,419		
Total		18,69,992	
Balance of direct revenue producing expenditure			1,10,97,864
Surplus of revenue over expenditure directly chargeable to Revenue			1,64,32,747

CHAPTER IV.

GENERAL.

1.—ADMINISTRATION.

52. No changes took place in the sanctioned permanent establishment of the Department.

Mr. S. Eardley-Wilmot, who had been officiating as Inspector-General of Forests, since the 4th February 1903, was appointed substantively to that post on the 15th August 1904. Seven officers of the Imperial Forest Service and three of the Provincial Service retired during the year. One officer of the Imperial Service resigned his appointment. Two officers of the Imperial and two of the Provincial Service died.

Ten Conservators were on leave during a part or the whole of the year.

OFFICERS ON FOREIGN SERVICE.

The following statement shows the number of officers on Foreign Service in India, in British Colonies and serving under other Governments :—

In India.

Imperial Service.

1. Mr. A. W. Blunt (Central Provinces), Kashmir.
2. Mr. R. M. Williamson (Central Provinces), Central India.

Provincial Service.

1. Mr. A. H. Mee (Bengal), Orissa.
2. Saiyid Mehdi Hasan (United Provinces), Kashmir.
3. Lala Daulat Ram (Punjab), Kashmir.
4. Lala Sundar Das (Punjab), Kotah State.
5. Lala Jai Kishen (Punjab), Jubal State.
6. Mr. Keshva Nand (United Provinces), Kashipur Estate.
7. Pandit Sada Nand Gairola (United Provinces), Tehri State.
8. Mr. Fazl-ud-din (Punjab), Patiala State.
9. Rai Bahadur M. Muttannah (Madras), Mysore.
10. Mr. R. C. Eber-Hardie (Madras), Jeypore.
11. Mr. V. Alwar Chetti (Madras), Cochin.
12. Bhagwandas Harkisandas Dalal (Bombay), Rajpipli.
13. Mr. G. O. Coombs (United Provinces), Alwar State.
14. Pandit Thakur Das (Punjab), Indore State.

In the Colonies.

1. Mr. H. N. Thompson, (Burma) South Nigeria.
2. Mr. T. J. Campbell, (United Provinces) Ceylon.

1. Mr. N. C. McLeod (Central Provinces), South Nigeria.

Under other Governments.

1. Mr. W. F. L. Tottenham, (Burma) Siam.
2. Mr. D. O. Witt, (Central Provinces) Siam.

1. Mr. R. C. Thompson (Central Provinces), Siam.
2. Mr. S. A Wood (Burma), Soudan.

2.—Exports of Forest Produce.

[*Vide* Appendix XXIV.]

53. The total value of exports at ports of shipment amounted to nearly 442 lakhs of rupees as compared with 445 lakhs in 1903-04, 320 lakhs in 1902-03, and 232 lakhs in 1901-02.

There was a marked increase in the exports of caoutchouc, 211 tons being exported as compared with 90 tons in 1903-04, but as was noted in last year's review the quantities exported in 1902-03 and 1903-04 were exceptionally low compared with the average of the preceding five years. No doubt the falling off was largely due to the supplies from the natural forests, which are mostly outside the sphere of British control, becoming exhausted through reckless tapping, and the increase in exports of the year under review may be due to the expanding outturn from artificially created plantations.

The quantity of lac exported during the year was 12,006 tons, against an average of 10,972 tons for the five preceding years. The value of this important product amounted to upwards of 3 crores of rupees and, in view of the growing importance of this commodity, a special enquiry is being made with a view of ascertaining whether the quality of the lac obtained can be improved and the quantity still further increased. The value of sandal, ebony, and other ornamental woods exported during the year decreased from 12 lakhs to 10 lakhs; there was a marked fall in the value of cutch and gambier exported from nearly 20 lakhs in 1903-04 to about 10 lakhs in the year under review.

The important trade in myrabolans continues to remain fairly constant the value of exports (42½ lakhs) being practically the same as in 1903-04. 59,379 tons were exported as compared with the preceding five years average of 54,364 tons.

The average exports of teak for the quinquennial period 1898-99 to 1902-03 amounted to 69,547 tons and in 1903-04, 73,913 tons valued at 91½ lakhs were exported, during the year under review however exports declined to 46,912 tons valued at 60 lakhs of rupees. The reasons for this marked decrease are not very clear, but no doubt the high prices for teak of first quality that have been ruling in recent years and which are perhaps referable to the temporary shortage of timber capable of yielding Europe squares is having some effect on the quantity of teak exported.

3.—Recruitment and Technical Education.

54. Nine students who had completed the forestry course at Coopers Hill College were appointed to be Assistant Conservators of Forests and arrived in India at the end of November 1904. They were posted two each to Burma and the Central Provinces, and one to the United Provinces and Bombay, and three to Madras. Mr. D. T. Barry, who after a training at Coopers Hill College had been appointed to the Forest Department in Ceylon, applied for a transfer to the Indian Forest Service, and with the Secretary of State's sanction was appointed an Assistant Conservator and posted to the Madras Presidency in March 1905.

Fifteen candidates for the Indian Forest Service were selected in England by the Secretary of State in 1905 and are under training at Oxford.

The Directorship of the Imperial Forest School at Dehra Dun was held by Mr. A. G. Hobart-Hampden, and during his absence on privilege leave by Mr. H. Jackson. At the Entrance Examination to the Forest School held in

October 1904, 120 candidates presented themselves, and of these 47 qualified for admission but only 26 eventually joined the School, the total number of admission being only 29.

Mr. S. Carr succeeded Mr. R. S. Troup as Director of the Burma Forest School. Nineteen students were admitted to the School in December 1904.

4. Forest Administration in Native States.

55. *Jammu and Kashmir.*—The State forests were administered during the year by Mr. A. W. Blunt, Indian Forest Service. The net increase to their area was 128 square miles, due to transfers and more accurate computation of areas, to the inclusion of new areas and exclusion of forests made over to other departments for extension of cultivation, etc. The total area of State forests at the close of the year amounted to 2,765 square miles, of which 2,138 square miles have been completely demarcated.

A set of rules for procedure to be observed in taking up forest land, was passed during the year by the State Council. The rules lay down that all lands not hitherto taken into State forests are under the control of the Revenue authorities and provide that, when the Forest Department desires to acquire forest lands, a joint enquiry must be made by the Local Forest Officer and the Tahsildar. It is pointed out however that the joint inspection and report involves delay, during which the forests are liable to be much injured. So that protection during enquiry is indicated.

No forest settlements were completed during the year, but arrangements were made for a simple form of future forest settlement in conjunction with a revision of forest boundaries.

The survey operations at present in force consist merely of a boundary traverse, 543 miles were so treated during the year.

A commencement was made in the important work of preparation of working-plans, areas amounting to some 350 square miles were examined and the forest stock enumerated.

There were 97 fires as compared with 150 in the previous year, the area burnt over however was somewhat larger, 5½ square miles being burnt against 3½ square miles in the preceding year. Most of the fires occurred in the comparatively dry forests of Jammu. In Kashmir Proper the danger of fire is considerably smaller.

Great damage is caused to the forests by excessive grazing and lopping of trees for fodder and the need of some restriction on the present unlimited right of grazing is urgently felt by the forest staff. It is said that the fine birch forests which formerly were not only a feature of the scenery in the Kashmir mountains, but also the source of supply of a valuable forest product are being rapidly destroyed and at the present rate will entirely disappear in a few years.

In the forests from which the main supplies of timber for export and use in the State are obtained the regeneration of all species is everywhere hampered and in many forests entirely prevented by overgrazing, and from the same cause regeneration of the forests, on which the continuous supply of firewood for Srinagar depends, is checked and the continued existence of the forest endangered, but until the present regulations are altered there is no hope of the regulation of grazing for the benefit of the State forests.

In many parts of the Kashmir Valley the hillsides have been completely denuded by overgrazing and the unrestrained cutting of timber and firewood, so much so, that the people now resort to digging up the roots of shrubs for firewood thus destroying the last chance of any natural reproduction. The laying bare of the hillsides would inevitably cause great danger by erosion to the cultivation at the foot of the hills, but orders have recently been issued which it is hoped will have a good effect in reducing this danger which threatens the prosperity of the agriculture and forestry of the State.

Produce for local requirements was given free on a liberal scale. All zemindars are allowed to remove their requirements of fuel free of dues, and grants of timber are made for building purposes.

The total value of the produce given in free grants is estimated at full rates to have been R6,40,252 which is more than the net revenue derived from the whole forest area.

The total outturn of timber and fuel from the State forests during the year amounted to nearly 35 million cubic feet; of this 30 million cubic feet consisted of fuel.

The financial results were fairly satisfactory, the surplus revenue being R6,11,016 as compared with R7,78,790 and R6,34,555 in the two preceding years. The decrease in revenue is attributed to the comparatively bad floating season delaying the delivery of sleepers.

56. *Mysore.*—By the addition of 6 new blocks aggregating 40 square miles the total area of the State forests in Mysore amounted at the close of the year to 2,135 square miles.

Some progress was made in forest settlement and in the selection of areas for reservation, and also in the important works of demarcation and forest surveys, 631 square miles of State forests being surveyed during the year.

The working-plans for most of the forests are only of a provisional nature. The area worked under sanctioned working-plans remained unaltered, namely, 135 square miles, but plans for 258 square miles were under compilation, leaving an area of 1,741 square miles for which plans have still to be taken in hand. The Mysore Government rightly think they should be of more permanent nature.

Although the season was not very favourable for the protection of forests from fire, the area burnt was 141 square miles as compared with 170 square miles in the preceding year. The total area attempted was 1,829 square miles.

The necessity of enlisting the sympathies of the wild tribes living within and on the borders of State forests in the cause of fire-protection, by offering rewards for successful protection, is recognized.

The spike disease among sandal trees still continued to cause great loss. The measures adopted to prevent the spread of the disease were continued. The total number of trees uprooted was 21,415, of which 20,905 were removed in the Mysore District alone, but this it is said by no means represents the actual number of trees affected. In view of the large interests at stake the Mysore Government are endeavouring to obtain the services of a specialist with a view to discover some effective prophylactic measure.

The number of forest offences increased from 624 in the preceding year to 895 during the year under review. The increase seems to be due partly to the bad season and poor crops which caused the poorer classes to resort

to unauthorized methods to obtain pasturage and forest produce. Only six per cent. of cases were taken into Court. It is stated that there is a tendency on the part of Forest Subordinates to avoid criminal prosecutions owing to the difficulty in securing convictions. The Mysore Government however points out that in cases of a serious nature prosecutions are necessary, and that in cases where it is considered there has been a failure of justice, the remedy lies in appeal to the Government.

The financial results of the year's working were satisfactory. The gross revenue amounted to R19,28,250 of which however R12,13,265 were obtained from the sales of sandal-wood and the remainder to timber and other produce. The expenditure in the collection and sale of sandal apparently amounted to R2,42,171, and R3,96,424 represents forest expenditure proper. The surplus revenue was R9,71,094 in sandal and R3,18,561 in forest operations.

57. *Jodhpur.*—The area under Forest Conservancy (347 square miles) remained the same as in the preceding year. The survey of the forests on a scale of 4" to the mile was continued, 29 square miles being surveyed during the year, making a total of 100 square miles surveyed up to date.

A working-plan for the Saran forests (area not stated) was prepared and plans for three other forests were in course of preparation during the year.

The number of forest offences was 313, of these 8 cases were taken into Court and 305 were compounded as compared with 249 cases compounded in 1903-04. The results of fire-protection were satisfactory, only 1,230 acres being burnt against 8,623 acres of the preceding year.

The outturn of timber and fuel amounted to 43,145 cubic feet and 500,280 cubic feet, respectively, as compared with the outturn in 1903-04 of 31,573 cubic feet timber and 504,283 cubic feet fuel. The value of minor forest produce removed increased from R9,571 to R14,873. A useful provision was made for bad years by the storage of some 16,000 maunds of grass.

The financial results showed a marked improvement, the gross revenue realised was R31,529, the surplus being R12,003, or almost double that of 1903-04. It is probable that the revenue will still further increase as arrangements have been made with the Jodhpur-Bikaner Railway to carry fuel at remunerative rates for sale in Jodhpur.

58. *Bhopawar.*—There was a net increase to the area under the control of the Forest Department of the Bhopawar Agency of 114 square miles, the total area now administered amounting to 1,754 square miles, of this only 528 square miles in the Barwani State are classed as reserves. The methods of forest conservancy adopted are simple, there are no working-plans and it is stated that "owing to the suspicion with which the aboriginals (Bhils) regard attempts at reform, rules governing the strict treatment of silviculture have to be relaxed."

The principles of management are however said to be the same as those obtaining in British India.

The number of forest offences was 161 as compared with 150 in 1903-04, which is a low percentage on the area of the forests.

The results of fire-protection are not very clearly shown in the Forest Administration Report. Of 1,122,560 acres under the control of the Forest Department, 789,760 acres were protected by means of fire lines and watchers, but it is not evident in which of the States systematic protection is attempted.

Several large fires occurred, notably two in the Dhar State, where the forests are imperfectly protected, burning 3,200 and 42,240 acres, respectively. In the Jobat State out of 28,800 acres no less than ¾ths of the area was burnt by one fire.

59. In the Barwani State where the forests are reserved and systematic protection appears to be adopted, the results were more satisfactory. Out of 3,54,560 acres about 41,000 acres were burnt over, nearly 20,000 acres being burnt in one fire.

The year, it is said, was on the whole favourable to fire-protection, but the percentage of failure is high.

The total outturn of timber and fuel during the year from all the eleven States of the Bhopawar Agency amounted to 1,363,152 cubic feet, the Dhar State yielding 565,491 cubic feet and Ali Rajpur State and Barwani State 251,853 and 255,931, respectively.

The financial results of the year's working show that the gross revenue and surplus was R1,12,342 and R48,580 as compared with R79,313 and R24,632 in 1903-04.

60. *Rewa Kantha Agency.*—

(*a*) *Rajpipla State.*—The area of this State is approximately 1,517 miles, and the demarcated forest area consists of 409 square miles of forest reserves. In addition there are 2½ square miles of babul plantations.

Working-plans for the Jhagadia Taluka were completed during the year and plans for other talukas are in progress.

Liberal concessions in regard to free forest produce appear to be made to the people, who are allowed free grazing and grass for storing also firewood for domestic requirements and timber for house-building. The financial results of the year's working showed a marked improvement, the gross revenue amounted to R90,937 with a surplus of R61,105, as compared with a gross revenue of 68,696 and a surplus of 30,901 in 1903-04.

(*b*) *Lunawada State.*—Although there are said to be 134 reserved forests in this State, little information is afforded in the administration report regarding the methods of working in force.

During the year some forests were offered for sale, but were not disposed of. Some of these, which it was necessary should be cleared, were cut and the produce sold by State agency. No expenditure appears to have been incurred in the management of the forests. The revenue amounted to R8,696 as against R7,047 in the preceding year. These receipts compared with those of years previous to the great famine are said to be very small, but the present demand and the rates obtainable for produce are both inadequate apparently in consequence of present demand being met from other forests.

(*c*) *Baria State.*—The total area of this State is 813 square miles. Certain forest tracts have been reserved, but as the State has not as yet been fully surveyed their area cannot be stated. The forests for the most part consist of teak.

It does not appear that any attempt at systematic working is made, but the cutting of certain kinds of trees in unreserved forests is prohibited.

(*d*) *Sunth State.*—This State is said to possess valuable forests but, as in the Baria State, their area has not been fully surveyed. Situated at a distance from the railway these areas at present yield comparatively little revenue. The gross revenue of the year amounted to R6,855 and the surplus to R6,170, as compared with a revenue of R7,985 and surplus of R7,331 in 1903-04, the decrease in revenue being due to smaller realisations from sales of timber.

(*e*) *Chhota Udepur State.*—The area of this State is 873 square miles. Apart from village forests the forest area extends over 225 square miles, of which 163 square miles are reserved and 62 square miles protected forests.

In 1895 Mr. Wallinger, Extra-Deputy Conservator, Bombay, was deputed to examine the State forests and prepare a working-plan. He accordingly submitted comprehensive proposals; these were considered by the Political Agent and orders laying down suitable methods of management were passed.

In consequence of famine in 1899 and subsequent years, and for other reasons the introduction of systematic management has been considerably hampered, but more active steps are now being taken to give effect to the sanctioned proposals for management and to instil more vigour into the work of the forest officials. The gross revenue from the forests during the year amounted to R11,244 as against R10,792 in 1903-04.

The expenditure amounted to R4,471, but this does not include the special amounts provided for grass operations and famine relief.

(*f*) *Balasinor State.*—There are only small forests of little value in this State, and owing to their being situated at a distance from the railway and communications being unsatisfactory, it is difficult to dispose of the small amount of forest produce available.

The revenue of the year was R1,082 and expenditure R882, as compared with R814 and R871, respectively, in the preceding year.

61. *Travancore.*—During the year 92 square miles of forests were finally notified as reserves and 51 square miles were gazetted for reservation. The total area under the control of the Forest and Cardamom Departments of Travancore at the close of the year was 2,245 square miles and 192 square miles of reserved lands.

Good progress appears to have been made in forest settlements, demarcation and surveys. Owing to the failure of the monsoon and the prolonged drought fire-protection was less successful than in the preceding year. The area attempted to be protected was 1,904 square miles, of which 85 square miles were burnt over.

There was a decrease in the number of forest offences, only 697 cases being reported as compared with 818 in 1903-04.

Some progress was made in the construction of roads and buildings, about R21,000 being spent on these works during the year.

Several additions were made to existing teak, rubber, and other plantations and at the close of the year there were 2,764 acres of plantations, of which 2,537 acres are under teak.

The gross revenue of the year amounted to 6⅓ lakhs, the surplus being 1⅓ lakhs; the financial results were therefore somewhat less favourable than in 1903-04 when the gross revenue was 6¾ lakhs and the surplus 2 lakhs, but the proportion of net to gross revenue shows that good work is being done in the organization of the forest establishment.

62. *Gwalior.*—Little information regarding forest management is contained in the administration report. During the year a Forest Department appears to have been organized and a committee was appointed to frame a Forest Code. The revenue of the year amounted to about R80,000 and the expenditure to R24,000, of which R21,000 was for establishment and contingencies, and R3,000 for survey and demarcation, etc.

63. *Bharatpur.*—It appears that prior to 1903 no attempt at systematic management of the forests was attempted. Recognizing the necessity for efficient forest management a committee was formed at the close of that year to consider the matter. Preliminary steps were taken to limit the area for grazing purposes with the object of protecting the hillsides from denudation. Experimental sowings of teak and other species also were made. During the year under review, at the request of the State, the Government of India arranged to lend the services of a Forest Ranger who after examination of the forest tracts will make proposals for their working and improvement.

64. *Alwar.*—The area under the Forest Department is 367 square miles. All this area is under fire-protection which was fairly successful in view of the fact that the season was unfavourable. Eighteen fires occurred, 16 square miles in all being burnt. There were 391 forest offences during the year chiefly of illicit grazing.

The year's revenue amounted to R1,16,000 the surplus obtained being R40,500.

65. *Baroda.*—The administration report for the year contains an interesting review of the management of the forests of this State in previous years. Although a separate department was constituted in 1877 to look after the State's forest interests it was not until 1891, when the services of an Imperial Officer (Mr. E. E. Fernandez) of the Indian Forest Service was obtained that any real progress in forest management commenced.

This officer reverted to British Service in 1894 when he was succeeded by the present Conservator Mr. Mediwala. A Forest Act was introduced and the work of reservation and demarcation and preparation of working-plans undertaken. At the close of the year under review the total area of reserves was 680 square miles and settlement work is now practically completed. Some working-plans are in force and several in course of compilation.

Attempts at fire-protection have been made during the last three years, but though the results are said to be encouraging it appears that the amount allotted for the work at present is inadequate. Forest offences appear to be of an unimportant nature and this seems to be largely due to the liberal arrangements for grazing, only about 5 per cent. of the reserves being closed to grazing.

Some successful work has been done in fixing the shifting sands that were gradually spreading and destroying village sites. The areas have now been successfully planted up with babul and casuarina principally, and it is stated that as a result of this reboisement, whereas formerly no water was obtainable in the tracts affected, a good water-supply is now available, the wells that have been sunk forming the only reliable source of water in the neighbourhood.

The financial results appear to be satisfactory, the revenue of the year amounted to ₹1,18,000 and expenditure to ₹64,000 as compared with ₹88,500 and ₹54,600 in 1903-04.

As a result of suitable and systematic management the Baroda forests are now a substantial direct source of revenue to the State and of undoubted benefit to the people both directly and indirectly.

APPENDIX I.

[*Vide* paragraph 2.]

Area of Reserved and Leased forests.

Province.	Area in square miles.				Remarks.
	At commencement of year.	Added in 1904-05.	Excluded in 1904-05.	At close of 1904-05.	
Bengal	6,014	191	156	6,049	
United Provinces .	(*a*)4,048	8	...	(*b*)4,056	(*a*) Includes 153 square miles of *leased* forests. (*b*) Includes 157 square miles of *leased* forests.
Punjab	(*c*)2,456	16	115	(*d*)2,357	(*c*) Includes 539 square miles of *leased* forests. (*d*) Includes 536 square mile of *leased* forests.
Burma	20,039	829	456	(*e*)20,412	(*e*) Wrongly shown in the Report as 20,411 square miles.
Assam	3,778	22	3	3,797	
Central Provinces including Berar.	22,672	486	417	22,741	
Coorg	410	...	...	410	
North-West Frontier .	234	...	...	234	
Ajmer	142	...	...	142	
Baluchistan . . .	208	26	...	234	
Andamans . . .	156	...	...	156	
Total Bengal . . .	60,157	1,578	1,147	60,588	
„ Madras . . .	17,923	195	11	18,107	(*f*) Includes 217 square miles of *leased* forests.
„ Bombay	(*f*)13,487	120	120	(*g*)13,487	(*g*) Includes 217 square miles of *leased* forests wrongly shown as 13,486 square miles.
Grand Total, 1904-05 .	(*h*)91,567	1,893	1,278	(*i*)92,182	(*h*) Includes 909 square miles of *leased* forests. (*i*) Includes 910 square miles of *leased* forests.
„ „ 1903-04 .	90,750	2,781	1,964	91,567	

APPENDIX II.

[*Vide* paragraphs 1, 2 and 3.]

Area of all forest lands.

Province. Name.	Area in square miles.	Forest area in square miles. Reserved.	Protected.	Unclassed State.	Total.	Proportion of forests to whole area of Province.	Remarks.
Bengal . . .	116,911	6,049	3,428	3,753	13,230	11·3	
United Provinces .	107,130	4,056	30	73	(*b*)4,159	3·9	(*b*) Include 157 square miles of *leased* forests, but exclude 9,105 square miles of protected forests in Naini Tal District.
Punjab . . .	97,220	(*c*) 2,357	4,908	1,846	(*d*)9,111	9·4	(*c*) and (*d*) Include 536 square miles of *leased* forests.
Burma . . .	162,519	20,412	...	103,203	(*e*)123,615	76·1	(*e*) Wrongly shown in the Report as 123,614 square miles.
Assam . . .	89,623	3,797	...	19,002	22,799	25·4	
Central Provinces including Berar .	99,222	22,741	...	6	(*f*)22,747	22·9	(*f*) Wrongly shown in the Report as 22,745 square miles.
Coorg . . .	1,582	410	39	(*g*)131	570	36·0	(*g*) Reserved lands.
North-West Frontier .	13,277	234	...	...	234	1·8	
Ajmer . . .	2,646	142	...	6	148	5·6	
Baluchistan . .	(*h*) 9,403	234	...	...	234	2·5	(*h*) British Baluchistan only.
Andamans . .	3,143	·156	...	1,795	1,951	62·1	South Island only.
Total Bengal . .	702,676	60,588	8,405	129,805	198,798	28·3	
Madras . . .	141,678	18,107	...	(*i*)1,519	19,626	13·8	(*i*) Reserved lands.
Bombay . . .	122,901	(*j*)13,487	(*k*)1,030	...	(*l*)14,517	11·8	(*j*) and (*l*) Include 217 square miles of *leased* forests. (*k*) Wrongly shown in the Report as 582 square miles.
Grand Total, 1904-05	967,255	(*m*)92,182	9,435	131,324	(*n*)232,941	24·1	(*m*) and (*n*) Include 910 square miles of *leased* forests.
,, , 1903-04	967,824	(*o*)91,567	9,865	131,269	(*p*)232,701	24·0	(*o*) and (*p*) Include 909 square miles of *leased* forests.

N.B.—The figures in column 2 above, which excludes the areas of Feudatory States, have been obtained from the Commercial Intelligence Department.

APPENDIX III.

[*Vide* paragraphs 4 and 5.]

Progress in Forest Settlements.

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.						Area undergoing settlement.								
				Area.			Expenditure incurred.			At commencement of the year.			Taken in hand during the year.			Expenditure incurred during the year.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	R	R	R	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	R	R	R
Bengal	6,026	...	6,026	18	...	18	...	...	...	456	...	456	...	...	...	...	...	...
United Provinces	3,896	30	3,926	4	...	4	...	...	...	7	...	7	32	...	32	...	...	...
Punjab	(a) 2,032	4,909	6,941	15	...	15	...	...	...	1	205	206	15	...	15	...	...	...
Burma	19,596	...	19,596	790	...	790	14,423	...	14,423	1,442	...	1,442	554	...	554	4,597	...	4,597
Assam	3,778	...	3,778	21	...	21	1,213	...	1,213	42	...	42	243	...	243	...	...	...
Central Provinces including Berar.	18,749	...	18,749	46	...	46	12	...	12	46	...	46	19	...	19	...	...	...
Coorg	410	...	410	...	...	...	...	...	...	121	...	121	...	...	...	821	...	821
North-West Frontier	234	...	234	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	208	...	208	26	...	26	...	...	...	...	...	...	...	...	...	...	...	...
Andamans	156	...	156	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Bengal	55,085	4,939	60,024	920	...	920	15,648	...	15,648	2,115	205	2,320	863	...	863	5,418	...	5,418
,, Madras	17,930	...	17,930	195	...	195	3,585	...	(b) 3,585	898	...	898	183	...	183	4,162	...	(c) 4,162
,, Bombay	13,391	667	14,058	77	...	77	...	...	...	29	...	29	6	...	6	5,676	...	(d) 5,676
Grand Total, 1904-05	86,406	5,606	92,012	1,192	...	1,192	19,233	...	19,233	3,042	205	3,247	1,052	...	1,052	15,256	...	15,256
,, ,, 1903-04	89,978	5,526	95,504	859	103	962	18,033	...	18,033	2,417	205	2,622	1,519	...	1,519	23,816	...	23,816

Note.—The total expenditure on Forest Settlements, compensation of lands, etc., as shown in Form No. 61 of Provincial Forest Reports for 1904-05 amounted to R69,590, and according to Form No. 47 from which the above table has been compiled, R34,489. Burma, Central Provinces, Madras, and Bombay are responsible for the difference of R34,107.

(*a*) Includes 116 square miles of Military and Civil Reserved Forests.
(*b*) Excludes R9,613 debited to other than Forest Accounts.
(*c*) ,, R14,712 ,, ,, ,, ,, ,,
(*d*) ,, R9,229 ,, ,, ,, ,, ,,

APPENDIX IV.

[*Vide* paragraph 6.]

Demarcation and Maintenance of Boundaries.

Province.	Circle.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
									On new work.	On repairs.
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	₹	₹
Bengal	.....	102	3,239	182	3,517	12	1,916	5,445	4,131	8,164
United Provinces	Central Circle	...	136	2,611	2,747	...	531	3,278	79	1,497
	Oudh „	11	359	717	1,087	55	272	1,414	393	1,134
	School „	23	334	491	848	102	291	1,241	486	1,679
	Total	34	829	3,819	4,682	157	1,094	5,933	958	4,610
Punjab	.....	503	3,107	7,016	10,626	3,702	1,198	15,526	2,679	3,286
Burma	Pegu Circle	199	473	2,423	3,095	165	1,103	4,363	1,246	3,915
	Tenasserim Circle	46	756	2,526	3,328	...	601	3,929	204	3,337
	Northern „	128	1,018	2,140	3,286	121	517	3,924	1,362	3,213
	Southern „	106	1,254	2,142	3,502	370	454	4,326	707	5,090
	Total	479	3,501	9,231	13,211	656	2,675	16,542	3,519	15,535
Assam	.....	14	1,149	12	1,175	...	1,602	2,777	158	2,503
Central Provinces	Northern Circle	3	11,074	2,128	13,205	...	1,284	14,489	2,021	11,023
	Southern „	8	6,855	1,303	8,166	59	888	9,113	36	2,497
	Berar „	159	3,134	8,773	12,066	1	748	12,815	2,812	3,102
	Total	170	21,063	12,204	33,437	60	2,920	36,417	4,869	16,622
Coorg	.....	24	...	283	307	173	54	534	580	108
Ajmer	.....	...	123	626	749	...	163	912	...	1,953
North-West Frontier	.....	...	2	242	244	...	158	402	240	22
Baluchistan	.....	24	285	29	338	24	77	439	...	...
Andamans	.....	...	...	42	42	29	116	187	...	...
Total Bengal	.....	1,350	33,232	33,686	68,328	4,813	11,973	85,114	17,434	52,853
Madras	Northern Circle	620	2,563	6,483	9,666	153	504	10,323	10,278	3,218
	Central „	268	8,357	6,333	14,958	354	205	15,517	3,512	1,968
	Southern „	865	1,250	7,427	9,542	636	960	11,138	4,959	8,772
	Total	1,753	12,170	20,243	34,166	1,143	1,669	36,978	18,749	13,958
Bombay	Northern Circle	168	1,535	2,615	4,318	174	397	4,889	2,541	1,456
	Central „	149	1,905	15,679	17,733	4,872	861	23,466	2,002	1,236
	Southern „	1,433	1,163	1,128	3,724	10,840	651	15,215	16,339	1,534
	Sindh „	14	1,582	371	1,967	...	591	2,558	...	...
	Total	1,764	6,185	19,793	27,742	15,886	2,500	46,128	20,882	4,226
Grand Total, 1904-05	.....	4,867	51,647	73,722	130,236	21,842	16,142	168,220	57,065	71,037
„ 1903-04	.....	2,886½	48,003¾	70,611	121,501¼	24,222	16,123¼	161,846½	50,072	53,322

N. B.—Boundaries include, beside the outer perimeter, the limits of enclosures of private and other lands within the forests, but not the limits of sub-division such as blocks, compartments and coupes.

APPENDIX V.

[*Vide* paragraphs 8 to 11.]

Forest areas surveyed.

Province.	4″=1 mile.		8″=1 mile.		Total of detail survey on 4″ scale and over.		Expenditure in surveys including mapping and publishing charges.	Total area surveyed according to the figures reported last year and in this year (column 2).
	Outturn.	Cost rate.	Outturn.	Cost rate.	1904-05.	Total up to date.		
1	2	3	4	5	6	7	8	9
	Sq. miles.	₹	Sq. miles.	₹	Sq. miles.	Sq. miles.	₹	Sq. miles.
Bengal	232	76·7	...	...	232	2,167	27,150	2,123
United Provinces	...	...	...	...	...	3,951	974	3,977
Punjab	106	22	...	...	106	3,345	3,204	3,515
North-West Frontier	156	26	...	...	156	341	4,720	341
Burma	1,181	120·8	...	...	1,181	11,177	2,16,569	11,226
Central Provinces, including Berar.	...	...	...	...	...	18,594	7,930	18,597
Assam	148	85·5	...	...	148	966	30,759	966
Ajmer	...	...	...	...	...	142	...	144
Total of Bengal	1,823	...	...	...	1,823	40,683	2,91,306	40,889
Madras	750	125	...	...	750	13,796	1,08,898	13,068
Bombay	598	61	187	141	785	10,766	78,473	10,969
Total of Madras and Bombay	1,348	...	187	...	1,535	24,562	187,371	24,037
Grand Total, 1904-05	3,171	...	187	...	3,358	(*a*) 65,245	(*b*) 4,78,677	(*d*) 64,926
„ 1903-04	3,214	...	158 (*d*) 3	...	3,375	61,855	(*c*) 460,994	(*d*) on 16″ scale.

(*a*) Area revised, *vide* Forest Survey Annual Report for 1904-05.
(*b*) Excludes Head quarters charges, *viz* :—₹12,968.
(*c*) Ditto Ditto ₹34,407.
(*d*) Includes cost of instruments . . ₹18,065.

APPENDIX VI.

[*Vide* paragraphs 8 to 11.]

Details of Forest Survey operations.

Province.	Forest surveyed.	Nature of survey operations.						Expenditure including mapping and publishing charges.			Remarks.
		4" detail survey.		Triangulation.		Traversing.					
		Area.	Cost rate.	Area.	Cost rate.	Area.	Cost rate.	Forests	Survey of India.	Total.	
		Sq. m.	R	Sq. m.	R	Sq. m.	R	R	R	R	
Bengal	Ranchi	...	...	...	...	...	...	38	16	54	Compute charges.
	Angul	232	77	55	19	66	32	14,857	6,122	20,979	Mapping and publishing charges.
	Singbhum	...	...	...	...	...	...	1,359	561	1,920	
	Darjeeling	...	...	...	...	...	...	1,300	537	1,837	
	Tista and Kolimpung.	...	...	...	...	...	...	144	60	204	
	Koderma (*a*)	151	10	...	...	42	15	2,156	...	2,156	(*a*) Special Boundary Survey.
	Total	383	76·7	55	19	108	26	19,854	7,296	27,150	
United Provinces. Western Circle	Ganges	...	...	...	...	...	...	480	...	480	Second Edition of Kumaun and Garhwal maps.
	Garhwal	...	...	...	...	...	...	168	...	168	
	Naini Tal	...	...	...	...	...	...	100	...	100	
Eastern Circle	Pilibhit	...	...	...	...	...	...	226	...	226	Second Edition of maps.
	Total	...	...	...	...	...	...	974	...	974	
Punjab	Chamba	...	...	...	...	...	...	11	11	22	Mapping and publishing charges.
	Chenab	...	...	...	...	...	...	76	31	107	
	Jhelum	46	22	...	...	...	...	1,112	458	1,570	Includes mapping and publishing charges.
	Lahore	60		...	...	...	...	942	386	1,328	
	Rawalpindi	...	...	...	...	...	...	126	51	177	Mapping and publishing charges.
	Total	106	22	...	...	...	...	2,267	937	3,204	
North-West Frontier	Hazara and Dungagali and Khanpur.	156	26	...	...	...	...	3,342	1,378	4,720	Includes mapping and publishing charges.
	Total	156	26	...	...	...	...	3,342	1,378	4,720	
Burma. Southern Circle	Yaw	113	...	800	...	716	...	34,893	14,954	49 847	
	Ruby Mines	40	...	...	...	...	...	1,998	822	2,820	
	Mandalay	47	...	...	...	...	...	2,494	1,028	3,522	
Northern Circle	Myittha	121	...	...	...	...	...	21,053	9,023	30,076	
	Upper Chindwin	...	...	...	...	...	...	797	341	1,138	Drawing and publishing charges.
	Lower Chindwin	316	...	...	...	28	...	28,908	12,389	41,297	
	Katha	234	..	602	...	256	...	23,356	9,626	32,982	
	Mu	180	...	100	...	284	...	16,494	6,798	23,292	
	Bhamo	...	...	...	...	...	...	358	147	505	Ditto
Tenasserim Circle	Thaungyin	...	...	...	...	225	...	5,825	2,496	8,321	
	Ataran	...	...	...	...	...	...	75	32	107	Ditto
Pegu	Thayetmyo	129	...	...	...	6	...	15,827	6,783	22,610	
	Pegu	...	...	...	...	...	...	36	16	52	Ditto
	Total	1,180	120·8	1,502	8	1,515	36	152,114	64,455	216,569	
Central Provinces. Northern Circle	Mandla	...	...	...	...	...	...	1,718	708	2,426	Mapping and publishing charges.
	Hoshangabad	...	...	...	...	...	...	182	76	258	
	Betul	...	...	...	...	...	...	280	116	396	
Southern Circle	Chanda	...	...	...	...	...	...	1,177	485	1,662	
Berar Circle	Basim	...	...	496	4	309	4	2,138	881	3,019	Traversing and Triangulation.
	Nagpur	...	...	...	...	...	...	39	16	55	Mapping and publishing charges.
	Nimar	...	...	...	...	...	...	80	34	114	
	Total	...	...	496	4	309	4	5,614	2,316	7,930	
Assam	Garo Hills	29	85·5	274	5	75	27	5,557	2,288	7,845	
	Kamrup	11		...		...		1,904	785	2,689	
	Nowgong	108		389		120		12,358	5,089	17,447	
	Sibsagar	...	...	120		107		864	357	1,221	
	Darrang	...	...	206		185		1,096	453	1,549	
	Lakhimpur	...	...	...	...	...		5	3	8	
	Total	148	85·5	989	5	487	27	21,784	8,975	30,759	

APPENDIX VI—*continued.*

Details of Forest Survey operations—*concluded.*

Province.	Forest Surveyed.	Nature of Survey Operations. 4″ Detail Survey. Area.	4″ Detail Survey. Cost rate.	Triangulation. Area.	Triangulation. Cost rate.	Traversing. Area.	Traversing. Cost rate.	Expenditure including mapping and publishing charges. Forests.	Survey of India.	Total.	Remarks.
		Sq. m.	R	Sq. m.	R	Sq. m.	R	R	R	R	
Madras. Northern Circle.	Ganjam and Krishna.	135	125	208	14	...	...	76,229	32,669	1,08,898	
	Godavari . .	227		...		...	...				
Madras. Southern Circle.	North Coimbatore	134		...		...	...				
	South Canara .	254		97		29	31				
	Malabar . .	...		717		...	...				
	Total .	750	125	1,022	14	29	31	76,229	32,669	1,08,898	
Bombay. Central Circle.	Khandesh .	350	61 on 4″ and 141 on 8″	500	12	23	13	55,009	23,464	78,473	*Includes 41 sq. miles on 8″. †On 8″ scale.
	Satara . .	178		510		...	...				
Bombay. Northern Circle.	Nasik . .	110*		...		...	...				
Bombay. Southern Circle.	Thana . .	147†		...		...	..				
	.....	...		...		...	...				
	Total .	785	61· 141·	1,010	12	23	13	55,009	23,464	78,473	
	Forest Survey Head-quarters.	...	...	...	...	...	...	...	...	42,968	
	Grand Total, 1904-05.	3,508	....	5,074	...	2,471	...	3,37,187	1,41,490	5,21,645(*a*)	(*a*) Includes cost of instrument R18,065.
	Grand Total, 1903-04.	3,360	...	5,709	...	2,748	...	...	...	4,95,401‡	‡Includes R34,407 on account of head-quarters charges.

APPENDIX VII.

[*Vide* paragraphs 12 to 15.]

Areas brought under the control of sanctioned Working-Plans in the provinces outside the Madras and Bombay Presidencies.

Province.	Forest area, in square miles.				Area for which Working-Plans prepared and sanctioned up to 30th June.	Proportion of Forest area under sanctioned Working-Plans.
	Reserved.	Protected.	Unclassed State.	Total.		
					Sq. miles.	Per cent.
Bengal	6,049	3,428	3,753	13,230	5,234	40
United Provinces	4,056	30	73	4,159	3,824	92
Punjab	2,357	4,908	1,846	9,111	3,836	42
Burma	20,412	...	103,203	123,615	3,388	3
Assam	3,797	...	19,002	22,799	597	3
Central Provinces including Berar	22,741	...	6	22,747	10,045	45
Coorg	410	39	121	570	178	31
North-West Frontier	234	...	...	234	76	32
Ajmer	142	...	6	148	140	95
Baluchistan	234	...	...	234	...	...
Andamans	156	...	1,795	1,951	...	...
Grand Total, 1904-05	60,588	8,405	129,805	198,798	27,318	14
„ 1903-04	60,157	8,545	129,633	198,335	24,407	12

APPENDIX VIII.

[*Vide* paragraphs 12 to 15.]

Progress in Working-Plans in the provinces outside the Madras and Bombay Presidencies.

Province.	Preliminary proposals submitted to the Inspector-General of Forests for Working-Plans.		Completed plans submitted for opinion and remarks of Inspector-General of Forests.		Plans finally sanctioned by Local Governments on recommendation of the Inspector-General of Forests.	
	No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.
1	2	3	4	5	6	7
	No.	Sq. miles.	No.	Sq. miles.	No.	Sq. Miles.
Bengal	6	990	2	832	2	832
United Provinces — Central Circle	...	...	2	20	1	18(*a*)
United Provinces — Oudh „	1	334	...	...	...	...
United Provinces — School „	1	295	1	278	...	78(*b*)
Punjab	1	165	1	1,230	1	1,230
Burma — Pegu Circle	2	29	3	500	1	83
Burma — Tenasserim Circle	...	...	...	...	...	...
Burma — Northern „	...	...	...	...	...	...
Burma — Southern „	2	614	1	39	1	39
Assam	...	...	...	...	...	64(*c*)
Central Provinces — Northern Circle	...	...	1	96	...	...
Central Provinces — Southern „	1	141	...	...	...	...
Central Provinces — Berar „	...	...	...	...	...	...
Coorg	...	...	...	...	...	...
North-West Frontier	...	...	1	62	...	...
Ajmer	1	140	1	140(*d*)	...	...
Baluchistan	...	...	...	...	...	...
Andamans	..	...	...	...	...	...
Total	15	2,708	13	3,197	6	2,344

(*a*) Area of the Working-Plan for the Lansdowne reserved forests revised during the year. Excludes 1 square mile of the Naini Tal Cantonment Forests, the Working-Plan for which was also revised. The latter area is included in column 2 of Appendix IX.

(*b*) This is the area of the revised Working-Plan for the Tehri-Garhwal Leased Deodar forests, *vide* remark (*e* in column 8 of Appendix IX. An area of 278 square miles of the Dehra Dun forests, the Working-Plan for which was revised during the year has been omitted from this column as it was entered in Appendix VIII to the Review for 1903-04, though the revised plan was not actually sanctioned till 1904-05.

(*c*) This area is shown in the Assam Forest Report for 1904-05, though its Working-Plan was not actually sanctioned in 1904-05 *vide* remark (*f*) in column 8 of Appendix IX.

(*d*) Area of original Working-Plan is under revision.

APPENDIX IX.

[*Vide* paragraphs 12 to 15.]

Comparative statement of progress made in Working-Plans.

Province.	Areas for which Working-Plans have been completed and sanctioned.		Areas for which Working-Plans are being compiled.		Areas for which Working-plans have still to be taken in hand.	Total forest area, as in Form No. 46.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
1	2	3	4	5	6	7	8
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	
Bengal	(*a*)4,402	832	560	18	7,418	13,230	(*a*) At the end of 1903-04 the area stood at 4,394 square miles; 14 square miles were added to the Tista and Puri Working-plans, while 6 square miles were excluded from the Sunderbans Working-plan.
United Provinces — Central Circle	(*b*)1,567	(*d*)18	...	...	363	1,948	
United Provinces — Oudh „	1,292	...	...	...	4	1,326	
United Provinces — School „	(*c*)869	(*e*)78	..	6	12	885	
Punjab	2,606	1,230	435	...	4,840	9,111	
Burma — Pegu Circle	1,019	83	437	133	23,953	25,625	(*b*) Includes about 1 square mile of the Nani Tal Cantonment forests the Working-plan for which was revised during the year.
Burma — Tenasserim Circle	1,187	...	810	50	29,620	31,667	
Burma — Northern „	36	...	...	288	27,617	27,941	
Burma — Southern „	1,024	39	248	773	36,297	38,382	
Assam	533	(*f*)64	1	...	3,199	22,799	(*c*) Includes 278 square miles of the Dehra Dun Working-plan revised during the year.
Central Provinces — Northern Circle	(*g*)4,978	...	1,025	...	1,555	8,845	
Central Provinces — Southern „	(*g*)3,459	...	182	503	441	7,299	
Central Provinces — Berar „	(*g*)1,608	...	...	...	4,579	6,603	(*d*) Excludes the area referred to in (*b*).
Coorg	178	...	...	...	392	570	
North-West Frontier	76	...	158	...	...	234	(*e*) Apparently areas of Revised Tehri-Garhwal Leased Deodar Working-plan which has not yet been approved by Inspector General of Forests, not sanctioned by the Local Government. This area has, however, been included in column 3 of Appendix VIII to make the total agree with that of Appendix VIII.
Ajmer	140	...	...	...	8	148	
Baluchistan	...	...	...	...	...	234	
Andamans	...	...	...	...	1,951	1,951	
TOTAL BENGAL	24,974	2,344	3,856	1,776	1,42,249	1,98,798	
Madras — Northern Circle	1,351	458	724	478	3,825	6,836	(*f*) This represents the area of the Working-plan for the Nambor reserved forest which was not actually sanctioned in 1904-05.
Madras — Central „	1,593	588	1,543	378	3,152	7,254	
Madras — Southern „	2,134	...	...	358	3,044	5,536	(*g*) Differences compared with the totals of columns 2 and 3 of Appendix IX for 1903-04 are due to various inclusions and exclusions which occurred during the year.
TOTAL	5,078	1,046	2,267	1,214	10,021	19,626	
Bombay — Northern Circle	1,285	74	63	...	724	2,146	
Bombay — Central „	1,385	157	1,111	156	2,466	6,357	
Bombay — Southern „	889	134	489	108	3,325	4,947	
Bombay — Sindh „	611	...	421	...	36	1,067	
TOTAL	4,170	365	2,084	264	6,551	14,517	

The above figures have been taken from Form No. 50 of Provincial Forest Reports.

APPENDIX X.

[*Vide* paragraphs 17, 18 and 19.]

Expenditure on Communications and Buildings.

Province.	New works.		Repairs.		Other Works.	Total
	Buildings.	Roads.	Buildings.	Roads.		
	₹	₹	₹	₹	₹	₹
Bengal	27,394	29,335	11,537	14,564	5,477	88,307
United Provinces	52,473	16,464	24,700	34,298	12,970	1,40,905
Punjab	10,902	6,537	6,114	4,604	1,003	29,160
Burma	59,774	24,308	28,128	11,123	3,536	1,26,869
Assam	3,572	12,776	6,364	4,313	1,196	28,221
Central Provinces including Berar	35,074	9,433	15,295	14,660	14,505	88,967
Coorg	266	97	750	1,330	101	2,514
North-West Frontier	2,131	985	267	312	18	3,713
Ajmer	492	446	105	247	344	1,634
Baluchistan	473	...	202	...	...	675
Andamans	1,434	17,563	1,200	160	...	20,357
Total Bengal	1,93,985	1,17,944	94,662	85,611	39,150	5,31,352
„ Madras	45,278	18,875	25,469	22,775	13,691	1,26,088
„ Bombay	50,497	30,426	5,426	10,743	12,118	1,09,210
Grand Total in 1904-05	2,89,760	1,67,245	1,25,557	1,19,129	64,959	7,66,650
„ „ „ 1903-04	2,25,010	1,70,619	1,18,739	1,13,594	52,071	6,80,033

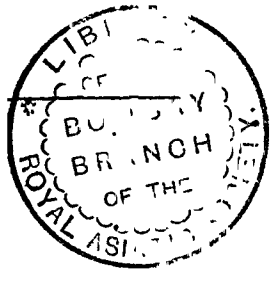
APPENDIX XI.

[*Vide* paragraphs 20 and 21.]

Breaches of Forest Rules.

Province.		Number of cases decided by the courts.	Number of cases compounded.	Total.	Proportion of convictions to total number of cases decided by the courts.
Bengal		350	2,669	3,019	84·3
United Provinces		100	891	991	85·0
Punjab		977	3,891	4,868	83·5
Burma		867	2,403	3,270	86·2
Assam		124	279	403	88·7
Central Provinces including Berar		277	5,193	5,470	80·9
Coorg		5	63	68	100
North-West Frontier		29	589	618	86 2
Ajmer		54	355	409	96·3
Baluchistan		65	152	217	84·6
Andamans		...	...	...	...
Total Bengal		2,848	16,485	19,333	84·8
Madras		5,730	12,287	18,017	91·8
Bombay		1,631	15,070	16,701	86·5
* Grand Total	1904-05	10,209	43,842	54,051	89·0
	1903-04	10,928	40,709	51,637	88·4
	1902-03	11,022	36,890	47,912	86·9

* Includes cases which were pending at the close of the previous year.



APPENDIX XII.

[*Vide* paragraphs 20 and 21.]

Breaches of Forest Rules.

Province.	Cases taken into Court.				Compounded cases.				Cases in which the offenders remained undetected.				Total of each class of offences				
	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tract in which grazing is prohibited.	Other offences.	Injury to fire protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts, in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Grand total of cases.
Bengal	18	206	17	94	9	1,774	843	97	41	4	...	1	68	1,984	860	192	3,104
United Provinces	6	38	43	15	11	501	346	32	23	37	3	...	40	576	392	47	1,055
Punjab	21	588	230	138	10	1,926	1,911	44	133	40	2	...	164	2,554	2,143	182	5,043
Burma	35	635	75	146	13	1,442	78	909	40	19	...	1	88	2,096	153	1,056	3,393
Assam	2	176	5	25	1	192	5	82	3	...	...	...	6	293	10	107	421
Central Provinces including Berar.	50	138	48	37	117	3,077	1,814	272	434	217	8	4	601	3,432	1,870	313	6,216
Coorg	3	1	2	2	...	11	29	38	...	...	...	...	3	12	31	40	86
North-West Frontier	2	28	3	1	2	336	248	3	25	5	7	...	29	369	258	4	660
Ajmer	3	38	10	2	4	254	92	5	6	...	...	...	13	292	102	7	414
Baluchistan	3	48	19	3	...	9	142	1	5	...	...	...	8	57	161	4	230
Andamans	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total Bengal	143	1,826	452	463	167	9,522	5,508	1,483	710	322	20	6	1,020	11,670	5,980	1,952	20,622
Madras	53	3,857	1,803	494	12	8,905	4,456	599	477	871	237	66	542	13,733	6,496	1,159	21,930
Bombay	117	648	678	147	169	4,824	8,986	1,016	2,150	1,993	170	85	2,436	7,465	9,834	1,248	20,983
*Grand Total, 1904-05	313	6,431	2,933	1,104	348	23,251	18,950	3,098	3,337	3,186	427	157	3,998	32,868	22,310	4,359	63,535
,, ,, 1903-04	426	5,816	3,589	1,116	471	21,675	17,227	2,759	4,080	2,785	414	131	4,977	30,276	21,230	4,006	60,489
,, ,, 1902-03	456	5,772	3,518	1,186	343	20,924	14,993	2,282	3,328	2,574	428	140	4,127	29,270	18,939	3,608	55,944
,, ,, 1901-02	459	6,746	3,630	1,003	473	19,964	13,340	2,307	3,609	2,662	383	114	4,541	29,372	17,353	3,124	54,390

* Includes only the new cases of the year; not those which were left pending at the close of the previous year.

APPENDIX XIII.

[*Vide* paragraph 24.]

Causes of Forest fires.

Province.		I.—Fires due to preventible causes. Fires originating in Departmental Fire Conservancy operations		External fires reaching the fire traces.		II.—Other fires. Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Total.	
		No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.
Bengal		3	2	9	...	26	4	10	4	48	10
United Provinces	Central Circle	3	½	3	...	4	½	...	...	10	1
	Oudh "	13	1	1	...	14	2	5	3	33	6
	School "	2	...	2	...	7	1	...	...	11	1
		18	1½	6	...	25	3½	5	3	54	8
Punjab		3	...	10	7	91	6	39	1	143	14 (*a*)
Burma	Pegu Circle	12	10	26	12	48	76	18	29	104	127
	Tenasserim Circle	10	2	13	45	49	314	18	79	90	440
	Northern "	4	...	...	...	6	2	3	...	13	2
	Southern "	13	1	6	1	34	47	4	14	57	63
		39	13	45	58	137	439	43	122	264	632*
Assam		1	1	13	122	4	3½	1	2½	19	129 (*b*)
Central Provinces	Northern Circle	24	111	19	31	96	98	9	16	148	256 (*c*)
	Southern "	10	1	32	34½	64	53½	16	10	122	99 (*d*)
	Berar "	15	8	9	49	70	110	...	...	94	167
		49	120	60	114½	230	261½	25	26	364	522
Coorg		...	...	2	...	3	1	8	1	13	2
North-West Frontier		...	...	...	...	...	...	35	1	35	1
Ajmer		3	...	...	...	8	2	...	...	11	2
	Total Bengal	116	137½	145	301½	524	720½	166	160½	951	1,320
Madras	Northern Circle	12	4	13	6	119	145	24	4	168	159 (*e*)
	Central "	6	...	20	5	235	67	157	23	418	95 (*f*)
	Southern "	6	...	30	16	151	62	84	22	271	100 (*g*)
	Total	24	4	63	27	505	274	265	49	857	354
Bombay	Northern Circle	30	3	117	27	608	161	6	1	761	192
	Central "	42	4	29	93	479	244	15	13	565	354
	Southern "	4	...	58	5	936	240	34	9	1,032	254 (*h*)
	Sindh "	...	...	12	1	68	10	2	...	82	11
	Total	76	7	216	126	2,091	655	57	23	2,440	811
Grand Total	1904-05	216	148½	424	454½	3,120	1,649½	488	232½	4,248	2,485
	1903-04	237	145	568	634	4,085	2,540	558	387	5,448	3,756

(*a*) Includes 2 square miles not under systematic protection.
(*b*) " 120 " of partially protected areas.
(*c*) " 214 " " " "
(*d*) " 81 " " " "
(*e*) Includes 132 square miles of partially protected areas.
(*f*) " 17 " " " "
(*g*) " 46 " " " "
(*h*) " 66 " " " "

APPENDIX XIV.

[*Vide* paragraph 26.]

Protection from Cattle.

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			All classes of Forests.		
	*Total areas.	†Area closed to all animals.	†Area closed to browsers only.	*Total areas.	†Area closed to all animals.	Area closed to browsers only.	*Total areas.	†Area closed to all animals.	Area closed to browsers only.	*Total areas.	†Area closed to all animals.	†Area closed to browsers only.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m	Sq. m.
Bengal	6,049	5,363	188	3,428	1,752	393	3,753	...	...	13,230	7,115	581
United Provinces	4,056	2,113	494	30	...	30	73	1	30	4,159	2,114	554
Punjab	2 357	594	518	4,908	51	78	1,846	11	141	9,111	656	737
Burma	20,412	16,484	62	...	...	...	103,203	...	...	123,615	16,484	62
Assam	3,797	2,717	998	...	...	...	19,002	...	...	22,799	2,717	998
Central Provinces including Berar.	22,741	4,033	7,926	...	...	...	6	...	...	22,747	4,033	7.926
Coorg	410	158	...	39	...	...	121	...	...	570	158	...
North-West Frontier	234	64	84	...	...	...	...	...	...	234	64	84
Ajmer	142	46	142	...	...	...	6	...	...	148	46	142
Baluchistan	234	174	...	...	...	...	...	...	...	234	174	...
Andamans	156	156	...	...	...	...	1,795	...	...	1,951	156	...
Total Bengal	60,588	31,902	10,412	8,405	1,803	501	129,805	12	171	198,798	33,717	11,084
Madras	18,107	1,611	351	...	...	...	1,519	10	...	19,626	1,621	351
Bombay	13,487	2,465	7,868	1,030	...	53	...	...	...	14,517	2,465	7,921
Grand Total 1904-05	92,182	35,978	18,631	9,435	1,803	554	131,324	22	171	232,941	37,803	19,356
Grand Total 1903-04	91,567	35,710	22,795	9,865	1,816	861	131,269	145	203	232,701	37,671	23,859

* Total areas as shown in Appendix II.
† For the whole year-areas closed for a part of the year omitted.

APPENDIX XV.

[*Vide* paragraph 26.]

Protection from Cattle.

Province.	Circle.	Grazed on payment, number of animals. — At full rates. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	At privileged rates. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Grazed free, number of animals. — By right under Settlement. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	During pleasure of Government or otherwise than under Settlement. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
Bengal	...	5,765	10,448	2,882	...	18	9,486	212,985	12,537	...	538	21,000	63,000	21,000	...	...	15	321	130	...	...
United Provinces.	Central	24,634	76,229	4,710	52	1,177	8,351	33,893	96,813	...	2,218	18,958	86,043	6,965	...	581	596	6,001	504	...	75
	Oudh	25,065	85,091	7,589	...	428	25,273	116,892	10,366	...	74	1,943	9,401	...	...	...	1,714	5,071	550	...	...
	School	17,312	42,818	17,224	3,482	5,151	1,092	8,303	110	...	...	429	17,097	45,914	...	20	...	1,349	...	...	...
Total	...	67,011	204,138	29,523	3,534	6,756	34,716	159,088	107,289	...	2,292	21,330	112,541	51,979	...	604	2,310	12,421	1,054	...	75
Punjab	...	11,667	39,470	422,003	18,115	723	933	12,408	230,566	96	161	145,135	622,559	567,366	282	10,129	7	325	81	723	12
Burma	Pegu	1,007	820	...	...	...	...	...	...	...	...	24,600	37,648	...	...	1	...	...	...	...	...
	Tenasserim	...	...	...	...	...	...	...	...	...	...	24,213	1,470	...	16	1	...	...	...	...	...
	Northern	42	...	...	...	...	18	...	...	...	...	5,727	5,785	...	...	...	1,723	257	...	...	546
	Southern	75	297	3	...	53	...	...	...	...	...	...	62,735	...	...	...	904	100	...	...	605
Total	...	1,124	1,117	3	...	53	18	...	...	...	...	54,540	107,638	...	16	2	2,627	357	...	...	1,151
Assam	...	27,202	4,597	25	...	607	...	...	...	...	...	...	60	...	...	...	70,196	373,436	72,327	...	513
Central Provinces.	Northern	217,119	1,105,646	90,517	2	4,113	...	...	...	...	...	...	...	...	...	...	15	8,226	65	...	...
	Southern	24,664	263,410	43,731	...	501	53,689	401,683	147,057	...	603	...	...	...	...	...	198	1,902	5	...	...
	Berar	199,024	910,094	511,999	227	19,476	10,960	114,616	5,374	...	295	12	106,957	...	...	...	...	19,211	141	...	9
Total	...	440,807	2,279,150	652,247	229	24,090	64,649	516,299	152,431	...	898	12	106,957	...	...	...	214	29,339	211	...	9
Coorg	...	359	2,299	...	...	...	...	...	...	...	...	...	1,750	...	...	...	...	30	...	...	...
North-West Frontier.	...	1,567	1,327	45	...	11	...	...	...	...	...	370	740	...	...	...	3,534	9,713	705	...	31
Ajmer	...	94	1,090	...	...	...	1,083	6,124	...	...	...	...	...	...	...	...	71	1,479	...	...	...
Baluchistan	...	9	5,798	1,40.	...	25	...	...	...	...	...	...	751	16,652	1	221	...	...	..	...	...
Total Bengal.	1904-05	555,605	2,579,434	1,108,128	21,878	32,283	110,885	906,904	502,823	96	3,889	242,387	1,015,996	656,997	299	10,959	78,974	427,424	74,568	723	1,821
	1903-04	525,520	2,561,257	1,277,037	15,314	16,649	73,489	564,217	365,709	264	3,409	223,810	1,015,627	649,866	306	11,337	51,530	280,936	14,274	1,553	2,480
Madras	Northern	76,791	454,121	633,951	...	4	7,495	50,116	10,500	...	...	...	2,685	5,505	...	...	29	5,337	...	...	...
	Central	35,002	779,179	704,073	...	...	...	372	395	...	...	...	1,900	...	...	...	898	2,778	45	...	...
	Southern	31,479	364,301	134,708	...	381	...	2,681	...	...	...	2,251	...	...	...	...	...	...	...	...	...
Total	1904-05	143,272	1,597,601	1,472,732	...	385	7,495	53,199	10,895	...	...	2,251	4,585	5,505	...	...	925	8,115	45	...	...
	1903-04	155,112	1,553,376	1,577,409	...	495	3,671	29,683	749	...	...	2,217	4,585	5,505	...	...	3,295	18,789	1,988	...	...
Bombay	Northern	1,537	3,241	...	...	2	2,170	10,422	...	...	...	...	...	...	...	...	44,718	271,585	...	...	9,265
	Central	7,037	18,439	127,775	...	1,116	69,116	308,425	61,905	...	732	...	...	...	...	...	3,301	22,822	...	...	375
	Southern	*2,669	...	470	...	...	*482,474	...	10,713	...	179	...	...	...	...	...	250	...	...	...	...
	Sindh	13,185	14,177	83,413	1,858	217	1,215	2,804	8,209	309	30	2,935	10,529	91	9	113	707	3,267	3,610	1,539	2,955
Total	1904-05	24,368	35,857	211,658	1,858	1,335	554,975	321,651	80,827	309	941	2,935	10,529	91	9	113	48,976	297,674	3,610	1,539	12,595
	1903-04	62,589	93,261	589,296	9,596	4,378	185,323	614,011	224,306	415	121,498	4,584	20,457	91	11	1,940	6,912	53,029	4,199	2,850	4,847
Grand Total.	1904-05	723,245	4,212,892	2,792,518	23,736	34,003	673,355	1,281,754	594,545	405	4,830	247,573	1,031,110	662,593	308	11,072	128,875	733,213	78,163	2,262	14,416
	1903-04	743,221	4,207,894	3,443,742	24,910	21,522	262,483	1,207,941	590,764	679	124,907	230,611	1,040,669	655,462	311	13,277	61,737	352,754	20,461	4,403	7,327

*Includes cows and bullocks.

APPENDIX XVI.

[*Vide* paragraphs 33 to 37.]

Area of plantations and the cost of the year's work.

Province.	AREA IN ACRES.												Cost of operations during the year.
	At Commencement of the year.			Added during the year.			Excluded during the year.			Balance at close of the year.			
	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	
Bengal	1,586	...	1,586	40	...	40	...	...	...	1,626	...	1,626	1,657
United Provinces	3,372	...	3,372	55	...	55	...	...	...	3,427	...	3,427	1,358
Punjab	977	...	977	...	...	...	...	...	...	977	...	977	46
Burma	5,347	66,743	72,090	819	3,035	3,854	...	105	105	6,166 (a)	69,673	75,839	116,963 (b)
Assam	3,222	7	3,229	78	...	78	117	...	117	3,183	7	3,190	7,133
Central Provinces including Berar.	25	...	25	1	...	1	1	...	1	25	...	25	1
Coorg	2,062	942	3,004	...	15	15	...	...	...	2,062	957	3,019	3,116
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	94	...	94	...	...	...	...	...	...	94	...	94	681
Baluchistan	33	...	33	...	...	...	...	...	...	33	...	33	107
Andamans	690	...	690	170	...	170	...	...	...	860	...	860	2,289
Total Bengal	17,408	67,692	85,100	1,163	3,050	4 213	118	105	223	18,453	70,637	89,090	133,351
Madras	42,195	...	(c) 42,195	676	...	676	1,744	...	1,744	41,127	...	(d) 41,127	41,856
Bombay	10,247	...	10,247	3,929	...	3,929	639	...	639	13,537	...	13,537	10,685
Grand Total 1904-05	69,850	67,692	137,542	5,768	3,050	8,818	2,501	105	2,606	73,117	70,637	143,754	185,892
Grand Total 1903-04	66,219	65,087	131,306	5,509	4,711	10,220	9,191	236	9,427	62,537	69,562	132,099	128,974

(a) Includes 2,582 acres of rubber plantation.
(b) „ 53,884 incurred on „ „
(c) Corrected figures.
(d) Includes 15,158 acres of topes.

APPENDIX XVII.

[*Vide* paragraph 45.]

Outturn of Forest Produce.

I

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			Average outturn per square mile. Reserved Forests.			Protected Forests.			Unclassed Forests.		
	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.
	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R
Bengal	21,937,817	14,295,198	1,86,206	16,220,539	4,354,677	1,31,313	503,648	6,467,650	5,851	3,627	2,363	31	4,732	1,270	38	134	1,723	2
United Provinces	15,738,745	11,326,712	3,18,119	393,376	2,900	3,251	134,789	31,800	2,436	3,880	2,793	78	13,113	97	108	1,846	436	33
Punjab	9,506,601	469,657	2,10,009	20,204,914	41,232	2,49,853	2,725,772	23,607	64,297	4,033	199	89	4,117	8	51	1,477	13	35
Burma	9,162,892	12,337,000 (a)	1,75,827	...	...	...	45,757,963	63,250,000 (a)	1,70,832	449	604	9	...	...	...	443	613	2
Assam	1,026,907	1,835,977 (b)	85,302	...	...	...	10,688,505	29,872,447 (a)	5,32,295	270	484	22	...	...	...	563	1,572	28
Central Provinces including Berar.	23,849,821	25,274,076 (c)	11,30,068	...	...	...	...	...	8	1,049	1,111	50	...	...	...	...	...	...
Coorg	157,747	112,250	15,501	2,150	5,250	...	123,606	25,400	251	385	274	38	55	135	...	1,021	210	
North-West Frontier	1,420,672	...	20,842	...	...	...	...	...	...	6.071	...	89	...	...	...	...	...	...
Ajmer	606,596	22,811	23,969	19	...	242	...	...	...	4,272	160	168	...	...	...	...	...	...
Baluchistan	33,412	...	12,118	...	...	...	460,965	...	42	143	...	52	...	...	...	...	...	...
Andamans (*d*)	555,315	276,741	1,217	...	...	...	1,361,054	606,180	8,773	3,560	1,774	8	...	...	...	758	338	5
Total Bengal 1904-05	83,996,525	65,950,422	21,79,178	36,820,998	4,404,059	3,84,659	61,756,296	100,277,081	7,84,785	27,739	9,762	634	22,017	1,510	197	6,242	4,905	107
„ „ 1903-04	81,853,205	68,861,175	16,39,599	36,976,682	4,593,151	4,08,409	55,370,232	82,385,676	6,32,081	1,366	1,145	27	4,323	54	47	427	636	5

(*a*) Excludes the number of canes the value of which is shown under minor produce.
(*b*) Excludes R4,018 worth of bamboos the number of which is not given.
(*c*) Excludes R6,562 worth of bamboos the number of which is not given in Form No. 58 under Northern Circle. In the same Circle, bamboos having been shown in tons the number has as usual been calculated at 700 per ton.
(*d*) Includes 325,359 c. ft. of timber and fuel, 418,451 bamboos, and R324 worth of minor produce.

II

Presidency.		Total area under control of Forest Department.	Timber and Fuel.	Bamboos.	Minor Produce.	Average outturn per square mile. Timber and Fuel.	Bamboos.	Minor. Produce.
		Sq. m.	C. ft.	No.	R	C. ft.	No.	R
Bengal		198,798	182,248,460	170,213,114	33,48,540	917	856	17
Madras		19,626	23,913,211	35,788,482	13,11,827	1,218	8,123	67
Bombay		14, 517	45,406,605	9,259,583	11,56,559	3,128	638	80
Grand Total	1904-05	232,941	251,568,276	215,261,179	58,16,926	1,080	924	25
	1903-04	232,701	232,916,345	198,512,073	44,79,111	1,001	853	19

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

APPEN

[*Vide* para

Forest Produce removed

Province.	Timber.				Fuel.			
	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	279,321	5,147,141	10,646	175,824	238,905	18,318,116	20,584	14,471,467
United Provinces	266,889	4,242,016	142,323	539,458	888,491	6,264,696	392,424	3,530,613
Punjab	883,290	1,701,590	3,680	1,254,128	3,287,122	1,591,798	148,335	23,567,344
Burma	4,225,005	27,484,702	559,483	589,945	230,350	19,651,319	29,200	2,150,851
Assam	199,664	3,346,927	855,978	...	12,836	2,835,440	4,457,367	7,200
Central Provinces including Berar	1,486,684	2,803,691	183,512	63,286	2,159,926	14,631,602	1,540,126	980,994
Coorg	78,377	111,300	2,150	...	22,870	68,800	...	...
North-West Frontier	330,885	763,594	...	187	69,788	213,102	8,136	34,980
Ajmer	171	5,779	33	3,567	...	594,635	1,150	1,280
Baluchistan	1,966	11,311	8,008	...	31,287	440,463	1,342	...
Andamans (a)	498,001	32,643	28,275	...	789,293	393	247,405	...
Total, Bengal 1904-05	8,245,253	45,650,694	1,794,088	2,626,395	7,730,868	64,610,364	6,846,069	44,744,729
Total, Bengal 1903-04	8,786,205	41,160,977	1,476,931	2,290,484	6,320,613	62,074,272	7,203,623	44,606,891
Madras (b)	655,211	2,235,087	90,463	120,711	9,794,023	10,757,206	2,933	257,577
Bombay	1,097,101	3,332,748	108,112	18,641	5,292,900	31,628,956	6,630	3,921,517
Grand Total 1904-05	9,997,565	51,218,529	1,992,663	2,765,747	22,817,791	106,996,526	6,855,632	48,923,823
Grand Total 1903-04	10,143,543	47,143,497	1,694,304	2,411,624	16,966,789	100,556,966	7,215,919	46,414,000

(a) Excludes 113,816 cubic feet of timber, 211,543 cubic feet of fuel
(b) „ 27,028 „ „ „ 92,078 „ „ „ „

DIX XVIII.

graphs 42 to 44.]

by different Agencies.

Bamboos.				Minor Produce including Grass and Grazing.				Province.	
Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.		
No.	No.	No.	No.	R	R	R	R		
335,612	18,752,313	12,800	6,016,800	1,470	1,92,777	956	1,28,167	Bengal.	
143,654	11,012,058	...	205,700	35,793	2,29,732	5,907	52,374	United Provinces.	
72,631	461,865	...	...	42,703	1,35,520	1,890	3,44,046	Punjab.	
33,000	71,882,000	29,000	3,643,000	5,883	1,88,247	13,270	1,39,309	Burma.	
5,898	29,424,730	2,277,796	...	51,591	2,05,793	3,60,198	15	Assam.	
191,344	23,029,708	1,444,024	609,000	14,527	10,62,140	18,619	34,790	Central Provinces including Berar.	
137,650	5,250	...	...	...	15,085	...	667	Coorg.	
...	...	...	...	336	11,072	8,703	731	North-West Frontier.	
300	21,211	1,300	...	2,531	3,012	831	18,079	Ajmer.	
...	...	...	...	34	1,434	801	9,891	Baluchistan.	
40,270	47,200	377,000	...	6,776	487	2,403	...	Andamans (*a*).	
960,359	154,636,335	4,141,920	10,474,500	1,61,594	20,45,299	4,13,578	7,28,069	1904-05	Total, Bengal.
903,586	142,040,485	2,987,042	9,740,455	1,44,787	15,47,375	3,42,502	6,45,370	1903-04	
664,076	34,911,894	190,873	21,639	47,216	12,20,942	2,152	41,517	Madras (*b*).	
14,715	7,157,363	87,289	2,000,216	48,355	4,86,277	9,375	6,12,552	Bombay.	
1,639,150	196,705,592	4,420,082	12,496,355	2,57,165	37,52,518	4,25,105	13,82,138	1904-05	Grand Total.
1,483,520	183,444,587	3,283,120	10,123,017	2,04,596	31,46,666	3,58,312	7,67,910	1903-04	

418,451 bamboos and R324 worth of minor produce removed for local use in the Settlement.
38,405 „ „ „ 1,487 „ „ „ „ obtained by confiscation.

APPENDIX XIX.

[*Vide* paragraphs 47 to 49.]

Comparative Statement of Revenue and Expenditure.

Province.	Revenue.		Surplus.		Deficit.		Proportion of Surplus to Gross Revenue.	Net Revenue per square mile of land under control of Forest Department.
	1904-05.	Average for preceding 5 years.	1904-05.	Average for preceding 5 years.	1904-05.	Average for preceding 5 years.		
	R	R	R	R	R	R	R	R
Imperial	3,768	4,630	...	...	79,290	82,175	...	...
Bengal	11,67,472	11,97,251	4,78,981	5,74,317	...	...	41·0	36
United Provinces	23,97,318	18,40,296	10,05,735	8,38,296	...	...	41·9	242
Punjab	18,74,443	14,86,597	8,62,089	4,73,631	...	...	46·0	95
Burma	89,59,756	73,49,604	55,12,832	45,51,348	...	...	61·5	45
Assam	8,15,677	5,77,303	3,12,021	2,19,362	...	...	38·3	14
Central Provinces and Berar	20,13,459	15,64,936	6,92,844	3,28,767	...	...	34·4	30
Coorg	1,93,087	1,77,002	1,09,267	95,185	...	...	56·5	192
North-West Frontier	90,991	57,272	16,033	12,668	...	...	17·6	69
Ajmer	17,297	10,280	1,656	...	...	5,943	9·5	...
Baluchistan	22,555	17,286	...	...	2,117	8,185	...	...
Andamans	6,20,796	3,12,761	2,78,365	1,06,048	...	...	44·5	143
Forest School	3,557	3,349	...	...	57,867	66,003	...	...
Forest Surveys	...	937	...	...	28,229	32,987	...	...
Total Bengal	1,81,80,176	1,45,99,504	91,02,320	70,04,829	...	...	50·1	46
Madras	28,29,216	24,91,487	8,43,118	7,58,488	...	...	29·8	43
Bombay	30,20,558	25,67,430	11,16,754	6,25,617	...	...	37·0	77
GRAND TOTAL 1904-05	2,40,29,950	1,96,58,421	1,10,62,192	83,88,934	...	...	46·0	47
GRAND TOTAL 1903-04	2,22,16,747	1,90,22,775	1,00,49,754	81,79,904	...	...	45·2	43

APPENDIX XX.

[*Vide* paragraph 60.]

Estimated value of Forest Produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Minor Produce.	Grass and Grazing.	Total.
	R	R	R	R	R	R
Bengal	9,482	66,076	9,872	53,332 (a)	80,792	2,19,554
United Provinces . .	53,100	56,683	859	5,622	85,182	2,01,446
Punjab	49,545	2,59,323	...	49,524	2,96,412	6,54,804
Burma	1,20,041	17,113	15,249	7,541	1,42,872	3,02,816
Assam	52,596	69,516	6,340	2,13,526	1,46,672	4,88,650
Central Provinces including Berar.	19,823	44,108	14,438	19,961	54,889	1,53,219
Coorg	304	...	26	...	667	997
North-West Frontier . .	32	837	...	100	9,334	10,303
Ajmer	486	44	13	4	19,942	20,489
Baluchistan . . .	794	20	...	437	10,255	11,506
Andamans . . .	2,910	10,491	994	2,727	...	17,122
Total Bengal .	3,09,113	5,24,211	47,791	3,52,774	8,47,017	20,80,906
Madras	63,213	4,954	3,300	40,774	11,350	1,23,591
Bombay	20,038	2,27,984	30,817	1,01,965	9,15,360	12,96,164
GRAND TOTAL 1904-05 .	3,92,364	7,57,149	81,908	4,95,513	17,73,727	35,00,661
GRAND TOTAL 1903-04 .	3,55,860	6,33,134	38,548	2,68,143	17,73,506	30,69,191

(*a*) Includes R7,924 which cannot be distributed among the other items, *vide* paragraph 56 of the Bengal Report, page 15.

APPENDIX XXI.

[*Vide* paragraph 51.]

Details of Revenue and Expenditure.

				Amount.	
				R	
Gross Receipts	(a) Wood			1,87,02,164	
	(b) Minor forest produce			15,75,142	
	(c) Forest stamps and commutation fees for forest produce			7,43,094	
	(d) Grazing			18,28,545	
	(e) Revenue from forests not managed by Government			4,69,603	
	(f) Miscellaneous			7,11,402	
	TOTAL REVENUE			2,40,29,950	
				Amount.	Proportion of Expenditure to Gross Revenue.
				R	Per cent.
Expenditure — A Recurring — (a) Administration	(i) Superior Staff			23,17,978	9·6
	(ii) Exchange Compensation Allowance.			85,359	·3
	(iii) Subordinate Staff (including Rangers, Foresters and Guards).			20,15,066	8·4
	(iv) Office Establishments (including Contingencies).			9,98,860	4·2
(b) Working	(1) Extraction			38,41,702	16·0
	(2) Roads and Buildings			7,46,526	3·1
	(3) Fire-protection			5,23,877	2·2
	(4) Cultural operations			4,35,761	1·8
	(5) Live-stock, stores and plant.			4,50,025	1·9
	(6) Working-plans			1,04,260	·4
	(7) Rent for leased forests			6,43,528	2·7
	(8) Miscellaneous			1,12,573	·5
(c) Expenditure on realization of revenue from forests not managed by Government.				47,472	·2
(d) Forest Science and Education (including all "A" and "B" charges of Forest School).				61,424	·3
			Total	1,23,84,411	51·5
B Extraordinary	(e) Forest Settlement			74,426	·3
	(f) Forest surveys			3,67,600	1·1
	(g) Forests Demarcation			1,41,419	·6
			Total	5,83,445	2·4
			GRAND TOTAL EXPENDITURE	1,29,67,856	54·0
			Net Revenue	1,10,62,094	46·0

APPENDIX XXII.

Summary of Revenue and Expenditure of the Forest Department in India for the financial year 1904-05.

APPEN

[*Vide* aragraphs

Summary of Revenue and Expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma (Lower)	Burma (Upper.)	Assam.	Central Provinces including Berar.	Coorg.	North-West Frontier Province.
REVENUE.	R	R	R	R	R	R	R	R	R	R
I.—Timber and other produce removed from the forests by Government agency.	1,315	2,05,850	5,35,835	14,07,037	34,57,300	8,36,660	1,59,045	2,03,920	1,54,381	44,540
II.—Timber and other produce removed from the forests by consumers or purchasers.	2,453	8,98,605	17,77 306	3,48,709	13,87,890	25,30,431	4,78,420	17,37,715	35,852	40,260
III.—Drift and waif wood and confiscated forest produce.	...	4,852	18,241	22,676	2,31,720	52,669	10,775	3,035	...	521
IV.—Revenue from forests not managed by Government.	...	...	10,907	2,011	3,23,230	...	1,10,987	524	...	...
V.—Miscellaneous . . .	...	58,165	55,029	34,010	85,560	54,296	56,450	68,235	2,854	5,670
Total Revenue .	3,768	11,67,472	23,97,318	18,74,443	54,85,700	34,74,056	8,15,677	20,13,459	1,93,087	90,991
EXPENDITURE.										
A.—Conservancy and Works.										
I.—Timber and other produce removed from the forests by Government agency.	...	92,984	2,52,192	4,01,162	8,08,170	3,30,626	1,01,175	2,11,322	15,816	32,670
II.—Timber and other produce removed from the forests by consumers or purchasers.	...	82,656	36,563	541	25,015	15,717	6,797	1,13,825	...	166
III.—Drift and waif wood and confiscated forest produce.	...	1,387	7,012	4,652	77,101	25,947	404	52	...	8
IV.—Revenue from forests not managed by Government.	...	...	4,254	8	1,851	...	40,111	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	...	...	3,78,706	1,77,821	...	...	30,495	...	...	5,350
VI.—Live-stock, stores, tools and plant.	...	15,940	22,114	5,245	54,551	55,914	21,735	26,716	6,853	499
VII.—Communications and buildings	...	83,158	1,36,335	28,421	50,724	74,741	26,823	82,819	3,103	2,718
VIII.—Demarcation, improvement and extension of forests.	223	72,374	1,02,610	51,098	3,30,583	3,25,179	62,031	1,33,521	11,391	5,398
IX.—Miscellaneous . . .	...	5,392	6,305	2,554	18,284	8,505	4,722	9,564	610	757
Total A.—Conservancy and Works .	223	3,53,891	9,46,091	6,71,502	13,66,279	8,36,629	2,94,293	5,77,819	37,773	47,566
B.—Establishments.										
I.—Salaries	64,334	2,74,065	3,63,311	2,67,329	5,28,823	4,95,020	1,70,344	6,25,608	37,971	22,121
II.—Travelling allowances . .	12,255	46,402	53,961	50,521	76,199	80,945	27,797	67,741	6,698	3,664
III.—Contingencies . . .	6,246	14,231	28,220	23,002	35,365	27,664	11,222	49,447	1,378	1,607
Total B.—Establishments .	82,835	3,34,698	4,45,492	3,40,852	6,40,387	6,03,629	2,09,363	7,42,796	46,047	27,392
Grand total of Expenditure .	83,058	6,88,589	13,91,583	10,12,354	20,06,666	14,40,258	5,03,656	13,20,615	83,820	74,958
Surplus .	...	4,78,883	10,05,735	8,62,089	34,79,034	20,33,798	3,12,021	6,92,844	1,09,267	16,033
Deficit .	79,290	...	...	...	...	...	...	...	...	...

DIX XXII.

47 to 49 and 51.]

Forest Department in India for the financial year 1904-05.

Ajmer.	Baluchistan.	Andamans.	Forest School.	Forest Surveys (Imperial).	Total Bengal Presidency.	Madras.	Bombay.	Grand Total.	Budget Heads.
R	R	R	R	R	R	R	R	R	REVENUE.
1,333	9,001	6,15,546	...	...	76,91,764	7,00,381	10,75,812	94,67,957	I.—Timber and other produce removed from the forests by Government agency.
15,019	1,448	2,911	...	...	92,57,049	19,89,943	18,53,750	1,31,00,742	II.—Timber and other produce removed from the forests by consumers or purchasers.
10	4	...	...	...	3,44,502	13,918	5,537	3,63,957	III.—Drift and waif wood and confiscated forest produce.
...	11,764	...	...	...	4,59,423	...	10,180	4,69,603	IV.—Revenue from forests not managed by Government.
935	338	2,339	3,557	...	4,27,438	1,24,974	75,279	6,27,691	V.—Miscellaneous.
17,297	22,555	6,20,796	3,557	...	1,81,80,176	28,29,216	30,20,558	2,40,29,950	Total Revenue.
									EXPENDITURE.
									A.—Conservancy and Works.
895	5,769	1,61,380	...	...	24,14,161	4,14,384	4,48,834	32,77,379	I.—Timber and other produce removed from the forests by Government agency.
111	...	...	...	...	2,81,391	1,16,822	48,073	4,46,286	II.—Timber and other produce removed from the forests by consumers or purchasers.
...	2	...	...	...	1,16,565	1,314	157	1,18,036	III.—Drift and waif wood and confiscated forest produce.
...	395	...	...	...	46,619	...	853	47,472	IV.—Revenue from forests not managed by Government.
...	...	...	...	...	5,92,372	23,711	27,445	6,43,528	V.—Rent of leased forests and payments to shareholders in forests managed by Government.
127	82	1,17,386	478	...	3,27,640	97,348	25,515	4,50,503	VI.—Live-stock, stores, tools and plant.
1,456	345	16,435	899	...	5,07,977	1,25,127	1,14,321	7,47,425	VII.—Communications and buildings.
1,713	139	4,093	...	28,229	11,28,582	3,12,370	2,06,392	16,47,344	VIII.—Demarcation, improvement, and extension of forests.
27	51	7,458	2,107	...	66,336	6,606	41,738	1,14,680	IX.—Miscellaneous.
4,329	6,783	3,06,752	3,484	28,229	54,81,643	10,97,682	9,13,328	74,92,653	Total A.—Conservancy and Works.
									B.—Establishments.
9,540	14,518	30,876	49,307	...	29,53,167	6,77,567	8,25,522	44,56,256	I.—Salaries.
935	2,889	4,107	3,783	...	4,37,897	1,47,851	1,14,459	7,00,207	II.—Travelling allowances.
837	482	696	4,850	...	2,05,247	62,998	50,495	3,18,740	III.—Contingencies.
1,312	17,889	35,679	57,940	...	35,96,311	8,88,416	9,90,476	54,75,203	Total B.—Establishments.
15,641	24,672	3,42,431	61,424	28,229	90,77,954	19,86,098	19,03,804	1,29,67,856	Grand Total of Expenditure.
1,656	...	2,78,365	...	...	91,02,222	8,43,118	11,16,754	1,10,62,094	Surplus.
...	2,117	...	57,867	28,229	...	...	...	...	Deficit.

APPEN

[*Vide* paragraphs

Revenue, Expenditure and Surplus of the Forest Department throughout India during

(I) REVE

Province.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
	R	R	R	R	R	R	R	R	R	R	R	R	R
Imperial*	18,887	27,407	30,732	32,907	26,574	14,708	4,186	4,847	4,017	4,759	6,370	6,688	5,240
Bengal	5,61,340	6,33,734	6,93,959	6,94,331	5,71,152	5,97,432	6,53,634	6,57,794	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880
United Provinces	9,42,228	10,66,094	10,13,103	16,11,383	15,72,319	14,61,495	15,73,556	12,47,454	14,62,802	17,14,153	16,37,879	17,31,514	16,52,540
Punjab	6,71 678	6,88,308	7,66,709	9,10,177	7,49,352	8,50,419	11,27,277	7,86,936	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630
Burma (Lower)	15,16,613	22,31,804	25,03,896	25,09,275	16,70,982	20,23,859	19,98,667	22,18,897	26,09,305	31,34,716	26,77,671	28,58,114	35,83,370
Burma (Upper)	...	...	...	...	...	...	1,08,074	2,96,876	15,79,928	18,06,070	16,44,297	13,27,300	20,76,630
Central Provinces	8,50,139	11.72,884	9,77,647	9,94,763	10,27,202	10,36,894	9,57,410	10,93,369	11,80,405	11,56,181	12,13,461	13,59,900	12,30,850
Assam	1,68,997	1,66,054	2,48,605	2,11,445	1,80,414	1,96,656	2,12,011	2,67,312	3,03,852	3,79,498	3,26,793	3,36,129	3,82,830
Coorg	87,857	1,00,361	1,38,022	87,822	1,13,233	89,386	99,291	1,27,028	1,36,183	92,753	1,35,561	1,62,897	1,80,680
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	1,124	4,065	7,126	8,198	10,456	9,697	11,274	14,293	13,574	11,592	15,266	19,799	14,890
Forest Surveys (Imperial)	272	...	348	36	234	202	211	40	315	220	2,104	257	520
Forest School	...	...	...	...	73	273	415	777	449	1,237	1,181	1,788	1,980
Andamans	27,734	48,407	70,858	24,762	22,213	23,944	31,870	1,04,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490
Total	48,46,869	61,39,121	64,51,305	70,85,108	59,44,204	63,04,965	67,77,906	68,19,685	91,19,610	1,01,53,811	93,80,674	99,06,351	1,10,47,530
Madras	7,36,780	8,06,908	9,06,442	9,53,704	11,66,916	11,98,650	12,46,911	13,74,920	15,15,006	15,57,627	17,95,408	16,94,216	15,77,210
Bombay	15,22,807	18,28,117	20,90,353	25,03,100	27,74,842	33,66,286	30,32,676	30,32,577	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550
Total (British India)	71,06,556	87,74,146	94,48,100	1,05,41,912	98,85,962	1,08,69,901	1,10,57,493	1,12,27,182	1,34,84,806	1,48,49,134	1,44,64,302	1,48,85,216	1,58,91,290
Berar	2,66,556	2,33,511	2,92,014	3,08,218	2,97,185	3,19,851	3,26,261	4,06,447	4,07,977	4,40,541	4,87,109	5,11,185	4,31,020
Forest Surveys (Berar)	...	...	...	...	934	631	651	596	...	...	...	...	...
Baluchistan	14,376	18,616	5,039	4,752	6,089	14,962	14,081	14,063	5,668	13,897	15,723	20,609	19,030
GRAND TOTAL	73,87,488	90,26,273	97,45,153	1,08,54,882	1,01,90,170	1,12,05,345	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,31

The figures in this statement have been fur
* Includes certain home receipts and un
† Amalgamated with the Central Provinces.

(II) EXPEN

Province.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Imperial*	65,291	77,635	87,268	98,266	96,306	88,245	86,299	78,626	86,199	81,311	85,414	65,788	1,07,270
Bengal	3,35,381	3,94,612	3,82,183	3,87,813	4,11,915	3,70,399	4,22,781	3,90,368	3,76,270	3,98,150	4,14,004	4,22,930	3,81,610
United Provinces	6,79.574	9,16,212	8,39,025	10,41,885	10,20,101	9,74,519	9,19,580	8,30,748	8,44,544	9,63,151	9,19,195	9,58,211	9,28,540
Punjab	4,95,368	5,16,269	5,60,750	6,53,146	5,58,070	6,25,483	7,16,510	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270
Burma (Lower)	7,12,568	11,50,224	1,12,28,955	12,17,824	12,12,233	11,50,952	10,75,830	10,32,694	12,31,944	13,32,844	10,86,474	13,25,121	13,63,250
Burma (Upper)	...	...	...	...	...	...	2,188	1,21,152	7,85,129	2,73,800	3,02,315	3,73,859	4,41,750
Central Provinces	4,95,512	4,97,013	4,12,247	4,36,058	4,95,821	4,45,432	4,99,293	5,52,939	6,68,697	6,96,445	7,35,554	8,03,915	8,51,400
Assam	1,42,725	1,65,361	1,71,823	1,99,562	1,97,699	2,11,491	2,12,287	2,26,892	2,09,905	2,57,129	2,33,852	2,67,525	2,64,070
Coorg	56,487	59,796	61,770	75,023	76,951	65,690	74,088	72,629	30,175	72,420	65,818	86,860	73,090
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	12,423	13,954	11,281	14,574	16,316	16,469	20,744	18,897	15,676	12,701	12,720	13,986	15,000
Forest Surveys (Imperial)	40,335	42,489	41,595	30,940	19,823	19,180	28,318	32,868	22,164	21,188	24,324	26,882	22,160
Forest School	...	...	...	...	22,568	24,239	30,831	33,129	32,961	29,646	35,191	44,347	50,400
Andamans	2,160	2,306	1,840	12,161	22,760	37,035	25,709	62,679	57,295	94,975	1,30,052	1,79,909	2,31,210
Total	30,37,824	38,35,871	38,01,740	41,67,252	41,50,563	40,79,137	41,14,548	41,31,533	50,04,844	48,79,615	47,47,954	52,09,608	53,86,020
Madras	5,19,270	6,03,419	6,45,352	7,86,733	8,96,505	9,37,972	11,53,122	11,29,212	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390
Bombay	11,67,347	11,69,181	12,78,770	15,64,172	17,78,723	18,39,461	19,52,910	19,44,005	16,93,962	17,70,691	18,69,887	19,31,457	19,04,970
Total (British India)	47,24,441	56,08,471	57,25,862	65,18,157	68,25,791	68,56,570	72,20,580	72,04,750	79,19,600	78,11,543	78,64,754	84,65,319	86,21,380
Berar	1,28,968	1,52,985	1,55,054	1,56,779	1,52,649	1,59,242	1,71,704	1,83,765	1,70,212	1,76,529	1,68,921	1,98,366	2,29,230
Forest Surveys (Berar)	...	...	...	15,043	34,801	42,910	45,472	42,098	23,955	6,464	...	...	...
Baluchistan	16,416	17,682	11,962	16,911	13,266	15,799	17,836	17,758	15,991	17,962	29,450	30,497	55,620
GRAND TOTAL	48,69,825	57,79,138	58,92,878	67,06,890	70,26,510	70,74,551	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,23

* Includes pay of Inspector-General of Forest
† Amalgamated with the Central Provinces.

(III) SUR

Province.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Imperial*	−46,404	−50,228	−56,536	−65,359	−69,732	−73,537	−82,113	−73,779	−82,182	−76,552	−79,044	−59,100	−1,02,030
Bengal	2,25,959	2,39,122	3,11,776	3,06,521	1,59,237	2,27,033	2,30,853	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270
United Provinces	2,62,654	1,49,882	1,74,378	5,69,498	5,52,218	4,86,976	6,53,976	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000
Punjab	1,76,310	1,72,039	2,05,959	2,57,021	1,91,282	1,74,936	4,10,767	1,09,024	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360
Burma (Lower)	8,04,045	10,81,580	12,74,941	12,91,451	4,58,749	8,72,907	9,22,837	11,86,203	13,77,361	18,01,872	15,91,197	15,32,993	22,20,120
Burma (Upper)	...	...	...	...	...	...	1,05,886	1,75,724	7,94,799	15,32,270	13,41,982	9,53,441	16,34,880
Central Provinces	3,54,627	6,75,871	5,65,400	5,58,711	5,31,381	5,91,462	4,58,117	5,40,430	5,11,708	4,59,736	4,77,907	5,55,985	3,79,450
Assam	26,272	693	76,782	11,883	−17,285	−14,838	−276	40,420	93,977	1,22,369	42,941	68,604	1,18,760
Coorg	31,370	40,568	73,252	12,799	36,282	23,696	25,203	54,399	56,008	20,333	69,743	96,037	1,07,590
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	−11,299	−9,889	−4,153	−6,376	−5,860	−6,772	−9,470	−4,604	−2,102	−1,109	2,546	5,813	−110
Forest Surveys (Imperial)	−40,063	−42,489	−41,217	−30,904	−19,589	−18,978	−28,107	−32,828	−21,849	−20,963	−22,220	−26,625	−21,640
Forest School	...	...	...	...	−22,395	−23,966	−30,416	−32,352	−32,512	−28,409	−34,007	−42,559	−48,120
Andamans	25,574	46,101	69,018	12,601	−547	−13,091	6,101	41,383	48,789	67,220	28,274	92,429	1,29,280
Total	18,09,045	23,03,750	26,49,565	29,17,856	17,93,641	22,25,828	26,63,358	26,88,152	41,14,766	52,74,196	46,32,720	46,96,743	56,61,510
Madras	2,17,610	2,03,489	2,61,090	1,66,971	2,70,411	2,60,678	93,789	2,45,703	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820
Bombay	3,55,410	6,58,936	8,11,583	9,38,928	9,96,119	15,26,825	10,79,766	10,88,572	11,56,228	13,67,005	14,18,333	13,53,192	13,64,580
Total (British India)	23,82 115	31,65,675	37,22,238	40,23,755	30,60,171	40,13,331	38,36,913	40,22,432	55,65,206	70,37,591	65,99,548	64,19,897	72,72,910
Berar	1,37,583	80,526	1,36,960	1,51,439	1,41,536	1,60,609	1,54,557	2,22,682	2,37,765	2,63,992	3,18,188	3,12,819	2,01,790
Forest Surveys (Berar)	...	...	...	−15,043	−33,870	−42,309	−44,821	−41,502	−23,955	−6,464	...	...	...
Baluchistan	−2,040	934	−6,923	−12,159	−7,177	−837	−3,755	−3,690	−10,326	−4,065	−13,726	−9,888	−36,590
GRAND TOTAL	25,17,663	32,47,135	38,52 27[illegible]	41,47,992	31,63,660	41,30,791	39,42,894	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110

* Includes pay of Inspector General of Forets, certain home
† Amalgamated with the Central Provinces.

DIX XXIII.

47 to 49 and 51.]

the 25 (financial) years from 1880-81 to 1904-05.

NUE.

1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	Provinces.
R	R	R	R	R	R	R	R	R	R	R	R	
2,680	4,980	2,690	4,100	19,130	17,540	6,090	2,463	3,481	3,659	7,455	3,768	Imperial*
8,01,610	7,95,670	9,18,710	13,70,850	11,89,280	9,72,310	11,38,910	12,33,339	12,92,237	12,56,247	10,65,523	11,67,472	Bengal.
17,09,860	16,58,250	16,01,340	14,44,820	13,86,670	15,68,040	16,14,740	15,63,463	17,15,508	20,25,324	22,80,416	23,97,318	United Provinces.
9,13,300	10,32,430	10,14,500	11,07,720	10,68,470	14,74,430	14,00,770	13,50,812	14,47,558	15,86,408	17,17,797	18,74,443	Punjab.
34,89,350	32,74,200	34,14,550	38,18,270	40,86,200	42,22,960	43,05,230	45,43,363	36,06,453	37,22,602	49,23,247	54,85,700	Burma (Lower).
22,95,750	21,62,580	22,81,280	25,60,680	31,29,030	41,27,930	35,06,820	35,11,081	22,67,485	30,16,451	33,45,288	34,74,056	Burma (Upper).
11,31,480	10,08,630	9,96,940	7,73,320	7,80,050	9,95,100	8,19,250	9,64,052	11,15,723	16,84,428	19,98,032	20,13,459	Central Provinces.
4,88,500	4,35,090	4,25,030	4,36,440	5,84,820	3,98,180	5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,647	Assam.
1,73,790	1,53,050	1,35,250	93,000	1,30,910	1,55,070	1,62,410	1,37,596	1,70,242	1,90,730	2,24,031	1,93,087	Coorg.
...	...	...	...	...	...	...	...	13,012	1,01,123	1,01,833	90,991	North-West Frontier.
14,620	12,840	15,640	12,370	15,540	14,420	10,270	10,646	6,865	9,736	13,884	17,297	Ajmer.
240	80	510	400	220	290	420	327	473	3,034	431	...	Forest Surveys (Imperial).
1,950	2,790	4,310	2,850	2,890	2,360	3,210	3,697	3,545	3,252	3,033	3,557	Forest School.
4,41,790	1,14,530	1,32,120	3,62,370	4,33,710	2,23,460	2,60,600	2,77,886	2,66,903	3,26,035	4,32,381	6,20,796	Andamans.
1,14,67,960	1,06,55,120	1,09,42,870	1,19,87,190	1,26,26,950	1,41,78,090	1,37,96,830	1,41,49,286	1,24,22,451	1,45,09,223	1,67,89,118	1,81,57,621	Total.
19,47,180	18,91,030	21,10,570	23,03,330	21,36,490	21,10,520	23,02,290	23,40,170	25,43,430	26,13,819	26,57,727	28,29,216	Madras.
37,94,350	37,50,030	35,36,670	30,32,710	26,16,660	22,85,150	24,15,200	29,61,529	23,79,729	23,29,156	27,51,539	30,20,558	Bombay.
1,72,09,490	1,62,99,180	1,65,90,110	1,73,23,230	1,73,80,100	1,85,83,760	1,85,14,320	1,94,50,985	1,73,45,610	1,94,52,204	2,21,88,384	2,40,07,395	Total (British India).
4,82,800	4,73,400	4,91,340	5,47,820	4,00,360	4,39,840	4,78,230	3,02,552	4,63,393	†	†	†	Berar.
...	...	...	...	...	...	...	...	...	...	†	†	Forest Surveys (Berar).
20,730	16,300	14,930	15,460	15,040	14,920	17,060	16,956	14,712	19,336	18,363	22,555	Baluchistan.
1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	Grand Total.

nished by the Comptroller and Auditor General.
distributable and petty local items.

DITURE.

80,840	84,950	80,410	78,960	84,300	85,460	96,550	83,578	79,539	85,017	89,345	83,058	Imperial.*
4,04,040	3,97,390	4,66,070	6,90,040	6,53,440	4,86,320	5,45,210	5,70,806	6,57,131	6,38,014	7,03,508	6,88,589	Bengal.
9,63,020	9,36,310	9,42,860	9,06,040	9,17,850	9,72,030	9,42,380	9,63,439	10,08,739	10,13,998	10,81,438	13,91,583	United Provinces.
6,36,430	7,22,120	6,78,420	7,23,300	7,71,940	8,55,340	12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	Punjab.
13,41,640	13,76,230	13,57,740	15,03,290	14,04,110	15,29,570	15,01,470	15,24,765	14,26,436	15,53,753	20,80,397	20,06,666	Burma (Lower).
5,20,860	5,39,760	5,75,860	6,25,530	7,92,500	8,96,620	9,45,970	11,29,951	12,20,021	13,36,510	13,22,007	14,40,258	Burma (Upper).
9,32,190	9,76,060	9,52,340	9,50,990	9,21,440	8,71,330	10,41,410	9,30,763	9,75,217	12,57,288	12,80,966	13,20,615	Central Provinces.
2,68,220	2,72,010	2,86,140	2,82,010	2,88,830	3,05,360	3,57,140	3,47,972	3,29,112	3,27,499	4,25,484	5,03,656	Assam.
86,890	86,140	85,810	71,630	87,020	80,100	74,220	70,905	82,333	89,437	92,191	83,820	Coorg.
...	...	...	...	...	...	...	...	19,510	54,085	60,693	74,958	North-West Frontier.
15,900	14,900	15,730	22,010	14,670	16,300	15,350	16,782	15,927	16,377	16,680	15,641	Ajmer.
27,900	29,840	29,950	31,970	33,950	33,970	33,980	33,991	33,730	33,985	33,935	28,229	Forest Surveys (Imperial).
65,530	65,980	67,950	67,380	60,920	63,370	73,550	71,238	76,290	66,338	59,339	61,424	Forest School.
2,44,550	1,22,780	1,02,020	3,16,600	2,47,340	1,38,400	1,40,940	1,40,137	2,04,667	2,81,702	2,66,121	3,42,431	Andamans.
55,88,010	56,26,470	56,41,330	62,70,050	62,78,310	63,34,170	69,79,660	67,71,671	70,66,987	77,14,098	86,18,429	90,53,282	Total.
13,62,770	13,86,350	14,45,610	15,31,300	15,72,850	15,94,670	16,53,530	17,15,431	17,09,554	18,35,552	17,50,930	19,86,098	Madras.
20,71,940	20,67,920	19,58,390	19,69,160	20,73,190	18,39,250	21,28,430	24,08,581	17,19,680	16,76,441	17,75,937	19,03,804	Bombay.
90,22,720	90,80,740	90,45,330	97,73,510	99,24,350	97,68,090	1,07,61,620	1,08,95,683	1,04,96,221	1,12,26,091	1,21,45,296	1,29,43,184	Total (British India).
2,54,250	2,51,640	2,45,510	2,41,870	2,44,050	2,38,070	2,31,380	2,35,103	2,25,687	†	†	†	Berar.
...	...	...	...	...	...	...	...	...	...	...	...	Forest Surveys (Berar).
63,730	40,910	41,770	29,770	27,330	27,760	28,680	29,254	24,480	23,240	21,697	24,672	Baluchistan.
93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	Grand Total.

certain home charges, and undistributable and petty local items.

PLUS.

−78,160	−79,970	−77,720	−71,860	−65,170	−67,920	−[illegible]450	−81,115	−76,056	−81,358	−81,890	−79,290	Imperial**
3,97,570	3,98,280	4,52,640	6,80,810	5,35,840	4,85,[illegible]00	[illegible]700	6,62,533	6,35,10[illegible]	6,18,233	3,62,015	4,78,883	Bengal.
7,46,840	7,21,940	6,58,480	5,38,480	4,68,820	5,96,090	6,72,360	6,02,021	7,06,[illegible]68	10,11,326	11,99,008	10,05,735	United Provinces.
2,76,870	3,10,310	3,36,080	3,84,420	2,96,530	6,19,010	1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	Punjab.
21,47,710	18,95,970	20,56,810	23,14,980	26,82,090	26,93,[illegible]90	28,03,760	30,18,597	21,80,017	21,68,849	28,92,850	34,79,034	Burma (Lower).
17,74,890	16,22,820	17,05,420	19,35,150	23,36,560	32,31,[illegible]10	25,60,850	23,81,130	10,47,464	16,79,941	20,23,281	20,33,798	Burma (Upper)
2,02,290	32,570	44,600	−1,77,670	−1,41,390	1,23,770	−2,22,180	32,299	1,40,506	4,27,140	7,17,066	6,92,814	Central Provinces.
2,20,280	1,63,080	1,38,890	1,54,430	95,990	92,820	2,10,960	2,01,549	1,83,851	2,52,701	2,50,248	3,12,021	Assam.
86,900	66,910	49,110	21,370	43,890	71,970	88,190	66,691	87,909	1,01,293	1,31,840	1,09,267	Coorg.
...	...	...	...	...	...	...	...	−6,498	47,038	41,230	16,033	North-West Frontier.
−1,280	−2,080	−90	−9,640	870	−1,880	−5,080	−6,136	−9,062	−6,641	−2,796	1,655	Ajmer.
−27,650	−29,760	−29,440	−31,570	−33,730	−33,680	−33,360	−33,664	−33,257	−30,851	−33,504	−28,229	Forest Surveys (Imperial).
−63,540	−63,190	−63,640	−64,530	−58,030	−61,010	−70,340	−67,541	−72,716	−63,086	−56,301	−57,867	Forest School.
1,97,240	−8,250	30,100	45,770	1,86,370	91,060	1,19,660	1,37,749	62,236	44,333	1,66,260	2,78,365	Andamans.
58,79,950	50,28,650	53,01,540	57,17,140	63,48,640	78,43,920	68,17,170	73,77,615	53,55,464	67,95,131	81,70,689	91,04,339	Total.
5,84,410	5,07,680	6,61,960	7,69,030	5,63,640	5,15,850	6,48,760	6,24,739	8,33,376	7,78,267	9,06,797	8,43,118	Madras.
17,22,410	16,82,110	15,78,280	10,63,550	5,43,470	4,55,900	2,86,770	5,52,948	6,60,049	6,52,715	9,75,602	11,16,754	Bombay.
81,86,770	72,18,440	75,41,780	75,49,720	74,55,[illegible]750 300	88,15,670	77,52,700	85,55,302	68,49,389	82,26,113	1,00,53,088	1,10,64,211	Total (British India.)
2,28,550	2,21,760	2,48,830	2,75,950	1,56,	2,01,770	2,13,850	67,449	2,37,706	†	†	†	Berar.
...	...	...	...	...	...	...	...	...	...	...	...	Forest Surveys (Berar.)
−43,000	−24,610	−26,810	−14,310	−12,290	−12,840	−11,620	−12,298	−9,768	−3,904	−3,334	−2,117	Baluchistan.
83,72,320	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,81,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	Grand Total.

charges, and u_distributable and petty local itmes.

APPENDIX XXIV.

[*Vide* paragraph 53.]

Exports of Forest Produce for 1904-05.

Articles of Forest Produce.	Quantity in tons of 20 cwt. In the case of Teak, cubic tons.		Valuation at the port of shipment in 1904-05.	
	Average of five years from 1899-1900 to 1903-04.	In 1904-05.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			R	R
Caoutchouc	228	211	9,11,760	4,321
Lac — Button	1,885	1,714	38,70,479	2,258
Lac — Shell	8,861	9,665	2,58,93,713	2,679
Lac — Stick and other kinds	226	627	9,99,929	1,595
Lac-dye	05(*a*)	...	...	...
Sandal, ebony and other ornamental woods	(*b*)	(*b*)	10,41,136*	...
Cutch and gambier	4,793	3,129	9,71,417	31
Myrabolans	54,364	59,379	42,59,063	72
Teak	68,854	46,912	60,05,383	128
Cardamoms	93	90	2,13,263	2,370
Total in 1904-05	...	...	4,41,66,143	...
„ „ 1903-04	...	...	4,44,63,881	...

(*a*) Average of two years, *viz.*, 1899-1900 and 1900-01. There were no exports in the years 1901-03, 1902-03 and 1903-04.
(*b*) Figures are not available.
* The value, in 1903-04 was R12,10,498.

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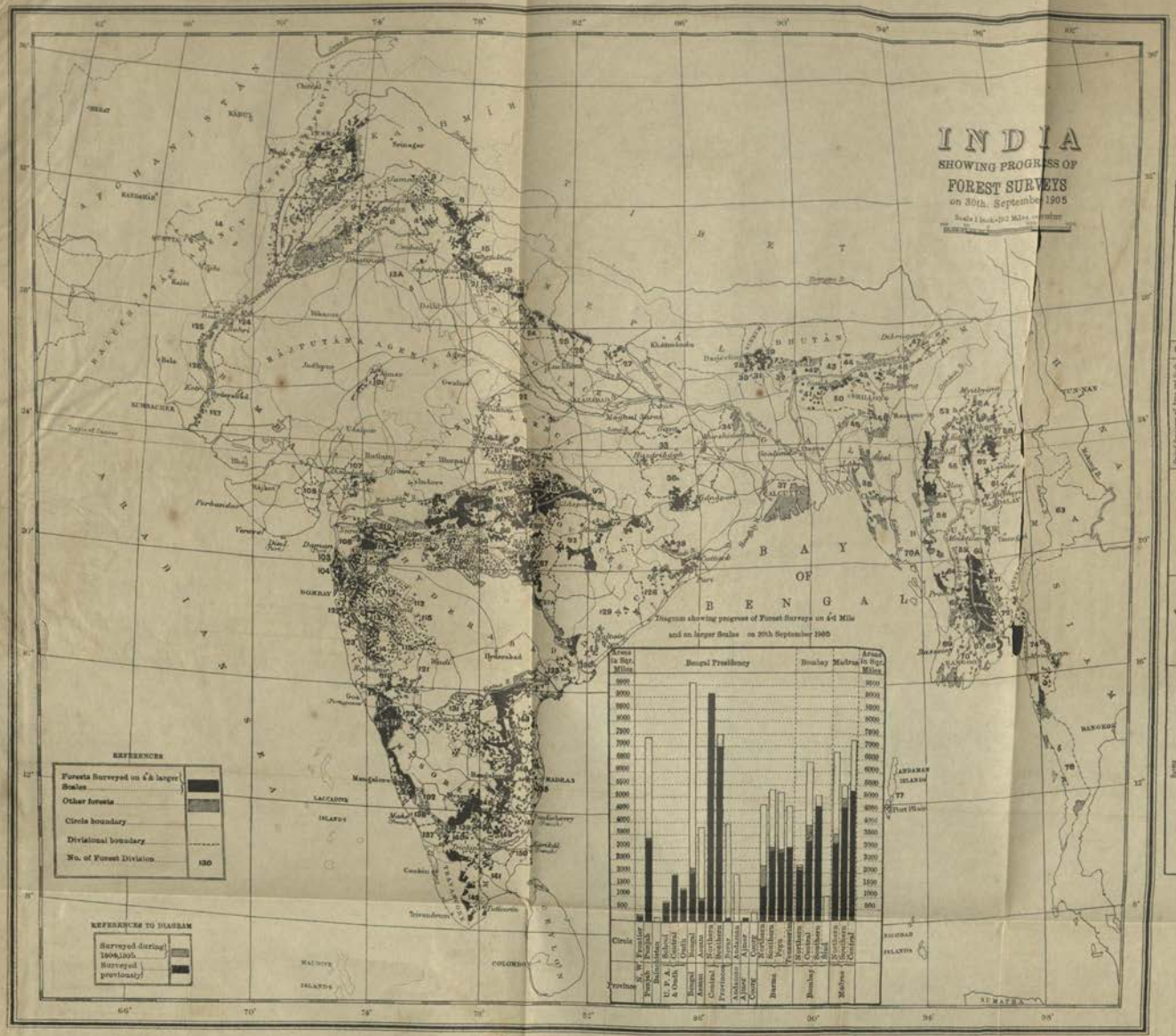

LIST OF FOREST DIVISIONS.

Province or Circle	Reference No. on Map	Division	Province or Circle		Reference No. on Map	Division
N.W. Frontier	1	Hazara	Burma	Southern Circle	75	Akyab
					76	South Tenasserim
Punjab	2	Rawalpindi	Baluchistan		77	Baluchistan
	3	Chenab	Central Provinces	Northern Circle	78	Wardha
	4	Kangra			79	Jubbulpore
	5	Hoshiar			80	Betul
	6	Rohtak			81	Seoni
	7	Hissar			82	Narsinghpur
	8	Lahore			83	Hoshangabad
	9	Ferozepore			84	Nimar
	10	Jhelum		Southern Circle	85	Nagpur-Wardha
	11	Shahpur			86	North Chanda
	12	Montgomery			87	South Chanda
	13	Multan			87A	South Chanda
	13A	Mianwali			88	Bhandara
Baluchistan	14	Baluchistan			89	Seoni
United Provinces of Agra and Oudh	15	Tarai East			90	Balaghat
	16	Tarai West			91	Chhindwara
	17	Jaunsar			92	Bilaspur
	18	Kumaon Tal			93	Raipur
	19	Kumaon			94	Sambalpur
	20	Garhwal		Inner Circle	95	Hoshangabad
	21	Ganges			96	Nimar
	22	Bundelkhand			97	Betul
	23	Bareilly			98	Raipur
	24	Khiri			100	Wun
	25	Dudwah	Ajmer-Merwara		101	Ajmer-Merwara
	26	Gonda	Coorg		102	Coorg
	27	Gorakhpur	Bombay	Northern Circle	103	North Thana
Bengal	28	Darjeeling			104	Central Thana
	29	Terai			105	South Thana
	30	Purnea			106	Surat
	31	Jalpaiguri			107	Dang
	32	Rajmahal			107	Panch Mahals
	33	Rangpur			108	Ahmedabad
	34	Sonthal Parganas		Central Circle	109	East Khandesh
	35	Singhbhum			110	West Khandesh
	36	Manbhum			111	Nasik
	37	Chittagong			112	Ahmednagar
	38	Angul			113	Poona
	39	Puri			114	Satara
Assam	40	Khasi and Jaintia Hills			115	Sholapur
	41	Garo Hills		Southern Circle	116	North Kanara
	42	Goalpara			117	South Kanara
	43	Kamrup			118	West Kanara
	44	Darrang			119	Belgaum
	45	Nowgong			120	Dharwar
	46	Sibsagar			121	Bijapur
	47	Lakhimpur			122	Kolaba
	48	Cachar			123	Ratnagiri
	49	Lushai		Sind Circle	124	Sukkur
	50	Khasi and Jaintia Hills			125	Upper Sind
Burma Northern Circle	51	Upper Chindwin			126	Hyderabad
	52	Myitkyo			127	Thar and Parkar
	53	Lower Chindwin	Madras	Northern Circle	128	Ganjam
	54	Ruby Mines			129	Vizagapatam
	55	Ye			130	Godavari
	56	Shwebo			131	Bellary
	57	Myitkyina			132	Kurnool
	58	Katha			133	Kistna
Burma Southern Circle	58	Ye			134	Nellore
	59	Minbu		Southern Circle	135	South Canara
	60	Pyinmana			136	North Malabar
	61	Mandalay			137	South Malabar
	62	Salw Mines			138	Nilgiris
	63	South Shan States			139	North Coimbatore
Pegu Circle	64	Kyaukhyse			140	South Coimbatore
	65	Prome			141	Madura
	66	Thayetmyo			142	Tinnevelly
	67	Sangaing		Central Circle	143	Salem
	68	Pegu			144	Cuddapah
	69	Bassein Wuntegyaw			145	Chingleput
	70	Henzada Thaungdut			146*	North Arcot
	70*	Irrakon			147	South Arcot
Tenasserim Circle	71	Tavoyan			148	Salem North
	72	Shwegyin			149*	Salem South
	73	Wuntho			149	Trichinopoly
	74	Thaungyin			150	Tanjore

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REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

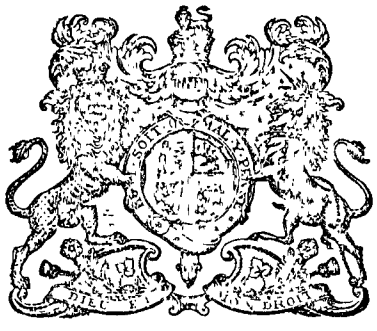
FOR THE YEAR

1905-1906

BY

S. EARDLEY-WILMOT,

INSPECTOR GENERAL OF FORESTS TO THE GOVERNMENT OF INDIA.



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[Prescribed maximum limit of report—20 pages.]

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REVIEW

OF

FOREST ADMINISTRATION IN BRITISH INDIA

FOR THE YEAR

1905-06.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—ALTERATION IN AREA.

[*Vide* Appendices I and II.]

The area reported to be under the control of the Forest Department, including Reserved and all other classes of Forests increased during the twelve months under review by 713 square miles, thereby bringing up the total area of forest lands at the close of the year to 233,651 square miles, which is equal to 24·1 per cent. of the total area of British India.

2. The most important additions to and exclusions from the forest area during the year were as follows :—

(i) Reserved and Leased Forests.

In Reserved Forests, the additions were 1986 square miles and exclusions 1669, involving a net increase of 317 square miles. The area of Leased Forests stood at 910 square miles throughout the year. The approximate changes in the different provinces were as follows :—

In the *United Provinces,* 36 square miles were added mainly in Pilibhit (29 square miles) and in Garhwal (5 square miles).

In the *Punjab* additions and exclusions were each of 9 square miles. The additions were nominal, due to rectification of areas by survey in Jhelum and Kulu, while exclusions were mainly in the interests of the Canal and Colonization Departments.

In *Burma,* including Taungyas and Karen areas, 626 square miles were added and 492 excluded. New reservations were mainly in the Northern Circle and exclusions in the Northern and Pegu Circles.

In *Eastern Bengal and Assam,* 40 square miles were added of which 11 were due to corrections by survey. For the latter reason also 10 square miles were excluded and 3 on account of rectification of a boundary in Jalpaiguri.

In the *Central Provinces,* 863 square miles were added chiefly owing to corrections of areas and re-classification in Berar and 1,081 square miles excluded, mainly also in Berar, under the general scheme of re-classification. Finality in this respect has now practically been attained.

In *Coorg* the inclusion of the Padinalknad Ghat Forests caused an increase of 95 square miles.

In *Baluchistan* 30 square miles were added in the Loralai District.

In *Madras,* 216 square miles were added mainly on transfer from reserved lands and 35 square miles excluded, while in *Bombay,* additions amounted to 71 square miles and exclusions to 39 square miles.

In *Bengal,* the *North-West Frontier Province, Ajmer* and the *Andamans* the area of Reserved Forests remained unchanged.

(ii) Protected Forests.

There was an increase during the year of 583 square miles which raised the total area to 10,018 square miles. The principal additions were 268 square miles in the Punjab and 362 in Bombay.

134397

The increase in the Punjab was chiefly due to re-afforestation in Multan and to rectification of area in Kulu consequent upon survey. Reductions were unimportant, the principal being 39 square miles in Coorg and 5 in Bengal.

(iii) Unclassed State Forests and Public Forest Lands.

The area at the close of the year was 131,137 square miles compared with 131,324 at its commencement, a decrease of 187 square miles.

3. The following statement exhibits the total area of each class of forest under the control of the Forest Department at the end of the years 1904-05, and 1905-06 :—

	1904-05.	1905-06.	Difference.
Reserved Forests	91,269	91,586	+317
Leased Forests	910	910	...
Protected Forests	9,435	10,018	+583
Unclassed State Forests and Public Forest Lands.	131,324	131,137	—187
TOTAL .	232,938	233,651	713

2.—FOREST SETTLEMENTS.

[*Vide* Appendix III.]

4. Progress was generally less satisfactory than in the previous year. The area finally settled fell from 1,192 square miles in the preceding year to 707 square miles, only 454 square miles being taken in hand compared with 1,052 in 1904-05.

The cost of settlement as nearly as can be ascertained was R52,635 compared with R68,500 in the previous year.

Out of a total area of Reserved Forests of 91,586 square miles and of Protected Forests of 10,018, there remained at the close of the year 3,860 and 4,114 square miles respectively of each class awaiting settlement. These balances appear to be mainly in Berar as regards Reserved Forests, and in Bombay and the Punjab as regards Protected Forests. The remarks made in last year's Review, urging the definition of privileges in the interests of efficient administration and adequate sylvicultural treatment, cannot again be too strongly brought to notice.

3.—DEMARCATION.

[*Vide* Appendix IV.]

5. The total length of boundaries at the close of the year was 169,693 miles compared with 168,220 at the end of 1904-05. Of the former, 16,456 miles consist of natural boundaries not requiring demarcation, leaving 153,237 miles in need of demarcation of which 135,341 had been completed; 17,896 miles therefore remained to be taken in hand compared with 21,842 at the close of the previous year. In the majority of provinces little remains to be done but in the Punjab and Bombay there remain balances of 3,575 and 12,183 miles respectively to be completed.

New work extended to 3,319 miles compared with 4,867 miles in the previous year, the corresponding cost being R44,482 against R57,065. The work does not therefore compare favourably with that of the previous year. The expenditure on repairs was R79,967 on 55,317 miles compared with R71,037 on 51,647 miles in 1904-05. The length of previously existing boundary not repaired at the close of the year stood at 76,705 miles, the latter

figure, together with the decrease in work under original demarcation and the comparatively small expenditure on maintenance, appears to show that in this important work there still remains much to be accomplished.

Forest Surveys.*

[*Vide* Appendices V and VI.]

6. No change in the organization of the Forest Survey Branch was made during the year, and it still remained under the administrative control of the Superintendent, Forest Surveys, though in view of the reorganization of the Survey of India arrangements were in progress at the close of the year for the transfer of Nos. 17 and 19 Parties to the Deputy Surveyor General and of No. 20 Party to the newly formed Burma Circle. No. 9 Party it is intended to abolish.

The Forest Survey Office will, in future, be maintained for the storing and issue of forest maps and records and the preparation of working-plans and other special maps required by the Inspector General of Forests.

7. Four Survey Parties were employed on Forest Surveys during the year one in Madras, one in Bombay and two in the Bengal Presidency, and the following areas were surveyed :—

	Square miles.
Bengal Presidency	2,019
Madras „	832
Bombay „	757
	3,608

8. The total cost of Forest Surveys was ₹5,21,645 as compared with ₹5,02,091 last year. The decrease of ₹19,554 is principally due to the fact that no forest surveys were carried on in Bengal proper, this work having been completed during the previous year.

9. During the year 386 maps were published, including 18 working-plan maps and 8 other special small scale maps. Eleven thousand six hundred and twenty-nine maps were distributed, of which 8,304 were coloured.

10. Details of the surveys carried out in the various provinces are given in the following paragraphs :—

Bengal.—No field surveys were carried out during the year and none are proposed for 1906-07. The survey of the reserved forests in the Sunderbans will be undertaken by the Superintendent, Provincial Surveys, Bengal.

Twenty-five maps were published during the year. The expenditure on mapping and publication during the year was ₹4,720, of which, ₹3,384 are debitable to the Forest Department.

Eastern Bengal and Assam.—An area of 571 square miles was surveyed by a detachment of No. 9 Party on the 2-inch scale in Darrang, in the course of which the Charduar, Balipara and Nowduar reserves were surveyed, at a cost of ₹30·5 per square mile. The expenditure in connection with this survey has been borne by the Survey of India. The Angratoli reserve in the Garo Hills and some scattered portions of the Nowgong reserves aggregating 19 square miles, were surveyed on the 4-inch scale at a cost of ₹129·8 per square mile. Twenty-five maps were published during the year.

The total expenditure amounted to ₹28,237, of which ₹4,520 are debitable to the Forest Department.

During the ensuing year a small Forest Survey party will undertake the 4-inch survey of the Sitapahar range in the Chittagong District.

United Provinces.—A small detachment was deputed for the traversing and 4-inch detail survey of the Surai Banbasa reserve in the Pilibhit District, but the work had to be stopped owing to a severe outbreak of cholera in the District, in the course of which a surveyor and two khalassis died. Work will be resumed in November 1906 and it is hoped the survey will be completed before the end of the year.

*Information communicated by the Superintendent of Forest Surveys.

The 4-inch detail survey of the leased Chir Forests of Tehri Garhwal, which is being undertaken at the expense of the State, was completed.

The areas and cost rates are as follows :—

	Square mile.	Cost rate. ₹
Pilibhit	17	17·6
Tehri Garhwal	81	35·1

The total expenditure amounted to ₹6,043, of which ₹1,035 were expended on account of a second edition of Kumaun and Garhwal maps. Rupees 5,778 are debitable to the Forest Department.

Seventeen maps were published during the year.

Punjab.—Fifty-three square miles of detail survey on the 4-inch scale in Rawalpindi and Lahore, costing ₹37·8 per square mile, and 839 linear miles of boundary survey in Shahpur and Bashahr costing ₹4·3 per linear mile, were surveyed during the year.

The total expenditure amounted to ₹6,218, of which ₹5,510 are debitable to the Forest Department.

Eight maps on the 4-inch and three maps on the 1-inch scale were published during the year. This completes the survey of the Punjab forests.

North-West Frontier Province.—An area of 25 square miles was surveyed in the Dungagali range in the Hazara District at a cost rate of ₹84·8 per square mile. The expenditure was ₹3,516, of which ₹2,490 are debitable to the Forest Department.

Sixteen maps were published during the year.

Central Provinces.—The only survey operation carried out by the Forest Survey Branch was the 4-inch detail survey of 320 acres in the Betul Division. Boundary surveys of all A and B class forests which occurred in the area topographically surveyed in Berar were carried out by No. 2 Party, Survey of India.

The total expenditure, chiefly on account of the publication of maps, was ₹3,424, of which ₹2,429 are debitable to the Forest Department.

During the year 59 maps on the 4-inch scale and 3 special maps of the Buldana Division were published.

Burma.—An area of 1,252 square miles was surveyed on the 4-inch scale, chiefly in the following Forest Divisions :—

Division.	Circle.
Yaw	Southern Circle.
Lower Chindwin	Northern Circle.
Katha	Northern Circle.
Mu	Northern Circle.
Thayetmyo	Pegu Circle.
Thungyin	Tennasserim Circle.

The average cost rate was ₹126·1 per square mile.

Seventy-nine sheets were published during the year.

The total expenditure was ₹2,20,379, of which ₹1,19,947 are debitable to the Forest Department.

In Coorg, Ajmer-Merwara and Baluchistan.—No surveys were made by the Forest Survey Branch.

Andamans.—Four surveyors were placed at the disposal of the Forest Officer who was preparing a working-plan for the North Andamans.

Madras.—An area of 832 square miles was surveyed on the 4-inch scale in Ganjam, Godavari, South Canara, North Malabar and Chingleput Districts. The cost rates averaged ₹104 per square mile.

The total expenditure amounted to ₹1,02,734, of which ₹68,209 are debitable to the Forest Department.

Sixty-six maps were published during the year.

The programme for 1906-07 provides for the completion of the 4-inch detail survey in Ganjam and boundary survey on the 4-inch scale in Malabar.

Bombay.—An area of 757 square miles was topographically surveyed, including 631 square miles in Satara and 126 square miles on the 8-inch scale in Thana.

The total expenditure amounted to ₹84,944, of which ₹60,156 are debitable to the Forest Department.

Seventy-two maps were published during the year.

The programme for next season provides for the survey of forest lands in the Nasik and Khandesh Districts.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation of Management.

Working-Plans.

[*Vide* Appendices VII, VIII and IX.]

11. The following information has been communicated by the Imperial Superintendent of Working-Plans:—

In the Bengal Presidency, working-plans for areas amounting to 1,290 square miles were sanctioned during the year. The most important additions to forests under regulated working were made in Burma and in Eastern Bengal and Assam where 686 and 391 square miles respectively were brought under working-plans. Working-plans for 5,460 square miles were in course of compilation at the close of the year.

In the Madras Presidency working-plans for 110 square miles were sanctioned, and plans for 3,622 square miles were under preparation at the close of the year.

In the Bombay Presidency plans for 971 square miles were sanctioned, whilst plans for 1,343 square miles still remained to be completed.

The following figures show the total areas under working-plans at the close of the year:—

	At commencement of year. Square miles.	Added during year. Square miles.	Total. Square miles.
Bengal	26,876	1,290	28,166
Madras	6,130	110	6,240
Bombay . . .	4,545	971	5,516
Total .	37,551	2,371	39,922

In the Provinces outside the Madras and Bombay Presidencies, 165,530 square miles remained to be brought under regular working-plans at the close of the year. This large area, however, includes extensive tracts of State and Unclassed forests (23,125 square miles of Unclassed forests in Eastern Bengal and Assam alone), for which no working-plans will be required in the immediate future owing to their inaccessibility and to want of demand; and also 4,145 square miles of State forests in the Central Provinces for which previously sanctioned working-plans have been abandoned. In the Madras and Bombay Presidencies 9,723 and 6,447 square miles respectively remained to be taken in hand at the close of the year.

12. The progress made during the year in the preparation of working-plans in the various Provinces was as follows:—

Bengal.—Two draft working-plans, *viz.*, for the Jalpaiguri Division (177 square miles) and the Buxa Division (327 square miles), were compiled during the year. These drafts were however subsequently transferred to the Eastern Bengal and Assam Forest Circle. The working-plans for the Darjeeling Division (39 square miles), the Puri Division (113 square miles) and the Sunderbans Division (3,833 square miles) were revised, and those for the Tista Valley forests of the Darjeeling Division (12 square miles) and the Mal forests of the Tista Division (221 square miles) were under revision during the year. Progress was made in the collection of data for the Angul Forests Working-Plan (251 square miles).

United Provinces.—The working-plan for the Naini Tal Municipal forests (2·2 square miles) was submitted during the year for sanction; and the compilation of working-plans for the Mussoorie Municipal and Landour Cantonment forests (4 square miles), the Chakrata Cantonment forests (3 square miles) and the Bahraich forests (334 square miles) was taken in hand. In addition the working-plans for the leased Deodar forests in Tehri-Garhwal

(78 square miles) and for the Saharanpur forests of the Siwalik Division (295 square miles) were under revision. The Preliminary Report for a new working-plan for the Pilibhit closed forests and the Preliminary Report for the revision of the existing working-plan for the Bhira forests of the Kheri Division were submitted during the year. The Preliminary Reports for the revision of the working-plans for the Trans-Sarda forests in the Kheri Division and the Nawabganj forests of the Gonda Division were under preparation.

Punjab.—A working-plan for the Bashahr leased forests (68 square miles) was sanctioned during the year, as well as the revision of the plan for the remaining forests (164 square miles) of the Sutlej Valley. The Pabar Valley Working-Plan (146 square miles) was under preparation.

Burma.—Regular working-plans for the Satpok, Sitkwin and Thindawyo Working Circles in the Tharrawaddy Division (20 square miles), the Rangoon Hill forests (188 square miles) and the South Zamayi Reserves (229 square miles) in the Pegu Division and a rough working-plan for the Padauk forests in the Ruby Mines Division (249 square miles) were sanctioned during the year. A working-plan for the East Yoma, Satsuwa and Tindaw reserves (134 square miles) and a preliminary working-plan report for the Mindon, Yoma, Ngawet and Made reserves (301 square miles) in the Thayetmyo Division were submitted for sanction towards the close of the year. The preparation of preliminary reports and working-plans for the forests in the Upper Chindwin and Myittha Divisions was continued and the plans for the Nyaunglebin Working Circle in the Shwegyin Division, the Taungdwingyi reserve in the Minbu Division and the Tonkan reserve in the Shwegyin Division were sent to press. In the course of the year the preparation of plans for an area of 2,567 square miles was taken in hand.

Eastern Bengal and Assam.—During the year working-plans for the Nambor reserves in the Sibsagar Division (64 square miles), for the Buxa Division (327 square miles), and for the *Sál* forests of the Darrang Division (3 square miles) were sanctioned; a revised working-plan for the reserved forests in Jalpaiguri Division (177 square miles) was also sanctioned during the year.

Central Provinces.—Sanction was conveyed to the new working-plan for the Banjar Valley *Sál* forests in the Mandla Division (98 square miles) and to the revised working-plan for the East Pench Range of the Nagpur Division (161 square miles). Working-plans for an area of 1,727 square miles in the Northern and Southern Circles were in course of preparation. A preliminary working-plan report for a portion of the Lormi Range *Sál* forests in the Southern Circle was being compiled during the year.

Coorg.—No progress was made during the year in the preparation of working-plans, but the compilation of a working-plan for the Jainkal forests and of a preliminary working-plan report for the Ghat Valleys was under consideration.

North-West Frontier.—Sanction was accorded to a working-plan for the Siran range (47·1 square miles). The working-plan for the Dungagalli-Thandiani Range (61·2 square miles) was prepared but not submitted during the year.

Ajmer-Merwara.
Baluchistan.
Andamans.
} No working-plans or preliminary reports were compiled during the year.

Madras.—During the year working-plans for 110 square miles were sanctioned by the Board of Revenue: plans for 2,558 square miles were under preparation at the commencement of the year and those for 1,064 square miles were taken in hand. An area of 9,723 square miles therefore remained to be brought under regular working-plans.

A preliminary working-plan report for the Kodaikanal and Tandigudi ranges in the Madura District was prepared during the year and that for the Palavaram range in the Godavari District was under preparation.

Bombay.—Sanction was accorded to three provincial working-plans in the Nasik Division comprising an area of 735 square miles, to the working-plans for the Yellapur Teak Slopes, the Yellapur Ghat Teak area and the Warkad-Hammadgi extension of the Khanapur Fuel Plan Working-plans for the Kolaba Division, the Mandvi forests and the forests of the Sukkur Division were prepared during the year, but these together with the revised working-plan for the Halol range in the Panch Mahals Division were however not ready for submission to the Local Government during the year. Other working-plans, *viz.*, for the Babul reserves of the Jamner, Bhusaval and Edalabad ranges; the Anjan and scrub jungles of Edalabad; the Lonavla-Khandala Firewood Supply and the Mahabaleshwar Plateau forests were drawn up but were still under consideration at the close of the year. The area for which working-plans remained to be taken in hand was estimated at 6,447 square miles.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

2.—Communications and Buildings.

[*Vide* Appendix X.]

(*a*) *Roads and Bridges.*

13. The expenditure on new work fell to ₹1,51,345 as compared with ₹1,67,245 of the previous year. Repairs on the other hand rose to ₹1,41,071 from ₹1,19,129 in 1904-05. The total amount spent on communications was thus ₹2,92,416 compared with ₹2,86,374 in the previous year.

Road work in *Bengal* was pushed on in Singbhum, other divisions also receiving attention.

In the *United Provinces* 61 miles of new roads were constructed and 4,191 miles repaired at a total cost of ₹53,565.

In the *Punjab* expenditure on new work rose to ₹14,726 compared with ₹6,537 in 1904-05 and maintenance to ₹5,108 against ₹4,604. New work consisted of 138 miles of bridle and other paths, while 964 miles of roads and paths were repaired.

In *Burma* new work cost ₹21,324 against ₹24,308 and repairs ₹9,700 against ₹11,123 in 1904-05. Considering the immense areas of forests to be exploited, this expenditure is clearly inadequate, but it is satisfactory to note that programmes prescribing construction for a term of years are in course of preparation, thereby ensuring more continuous progress.

In *Eastern Bengal and Assam* there was a falling off in expenditure on new work of about ₹3,500 while repairs cost ₹11,002 or about the same as last year. No tramway extension was undertaken. Most of the forests in this circle are devoid of communications, exploitation being confined to the edges of water courses, so that it is essential that the subject of communications should have the most careful attention.

In the *Central Provinces* 117 miles of cart road and 30 miles of minor roads cost ₹17,867. This is nearly double the amount spent in the previous year, but without roads remunerative exploitation is impossible in these forests and much larger sums will have to be disbursed before their full outturn can be utilised. Maintenance showed little difference, 4,691 miles of road costing only ₹13,497 or less than ₹3 per mile — a sum which would hardly pay for grass cutting on a width of 8 or 10 feet. The average annual profit on the Allapilli Monorail tramway for a period of three years is said to be 21·26 per cent. on the capital cost, after deducting 10 per cent. per annum for depreciation.

In *Madras* ₹18,599 were spent on new roads, while repairs cost ₹29,258 or nearly ₹6,500 more than in 1904-05. The monorail tramway in Godavari showed a profit as also did the tramway in Nellore, while that in Coimbatore appears to have been worked at a loss. The rate in Godavari per ton-mile fell from ₹2-0-5 to ₹0-10-4, the rate for carriage by other means being ₹1-5. In Coimbatore the rate was ₹1-4 per ton-mile while the estimated cost of carting was ₹1-0-8. These figures are of interest as again affording proof that well considered systems of mechanical transport are often not only highly remunerative but sometimes render accessible valuable forest tracts which must otherwise remain closed to exploitation.

In *Bombay* the amount spent on new roads was ₹24,804 or ₹5,622 less than in the previous year, repairs costing ₹9,433 or ₹1,310 less. 19½ miles of road were completed in the Dangs and some progress was made in Kanara but the forests of Bombay are clearly in need of a more extensive system of communications which must entail a much higher expenditure in the future.

(*b*) *Buildings.*

14. The importance of providing adequate shelter for the Forest Staff now appears to be recognised in every Province, though in some a commencement is only now being made to attain this desirable end. The total amount expended on buildings was ₹5,09,515 or about ₹94,000 more than in the previous year. The expenditure on new work increased by ₹66,776 and on repairs by ₹27,422. The most noteworthy increase of expenditure on new work, amounting to nearly ₹33,000, took place in the *United Provinces*. A five years scheme for buildings came during the year into operation. In the *Punjab* about ₹6,000, in *Eastern Bengal and Assam* about ₹3,000, in *Coorg* ₹3,000, in *Madras* about ₹13,000, and in *Bombay* over ₹15,000 more was spent than in 1904-05. At the same time the expenditure on repairs of existing

buildings rose in most Provinces. The suggestions with regard to buildings in sanctioned working-plans were not always acted up to in full. It is however necessary to remember that it is often difficult and sometimes impossible to carry out the sylvicultural prescriptions of a working-plan if the suggestions as to roads and buildings are not fully complied with. The one may be to a great extent dependent on the other, and omissions to incur a necessary expenditure on communications and housing of subordinates, may result in inability to reap all the benefits of the proper exploitation of the forest with the estimated financial results. Hence in order to ensure continuity of purpose it is essential that the suggestions of the working-plan officer, if approved by the Local Government, should be embodied in sanctioned programmes for which adequate funds should be provided.

(*c*) *Miscellaneous Works.*

15. Rupees 64,835 was expended under this head, practically the same as in the previous year. The miscellaneous items, including the construction and maintenance of wells, irrigation works, tanks, clearing streams, camping grounds and compounds are of considerable local importance, the principal amounts being in the *United Provinces* ₹10,098, in the *Central Provinces and Berar* ₹14,781, in *Madras* ₹8,407, and in *Bombay* ₹14,688. In the *Central Provinces* the provision of tanks in grazing grounds continued to receive attention, while in the Sind Circle new irrigation works cost ₹7,174 and repairs ₹3,544.

3.—Protection of Forests.

(*a*) General Protection.

[*Vide* Appendices XI and XII.]

16. There was during the year under review a noticeable increase in the number of forest offences taken into court and compounded, the total reaching 57,723 or an excess of about 3,700 on last year's record, and of 6,500 on the average of the past three years. The increase was general in all provinces except in *Bengal*, the *United Provinces* and the *Punjab*, but is most noticeable in *Madras* and *Bombay* where, compared with the previous year's returns, 1,397 and 1,961 more cases are shown. In *Bombay* the increase is ascribed partly to the prevailing scarcity, but both there and in *Madras* the greater efficiency of the protective staff is suggested as a reason for this undesirable phenomenon. The number of undetected cases has however also somewhat increased in both provinces. The total number of undetected offences was 7,288 against 7,107 in 1904-05. Of the former, 3,462 were cases of injury to forests by fire and 2,977 were cases of unauthorised felling or appropriation of wood and other forest produce.

17. The forest offences of the year under review compare with the average of the preceding three years as follows :—

	Average 1902-03—1904-05.	In 1905-06.
Injury by fire	4,367	4,320
Unauthorised felling and removal of forest produce.	30,805	33,911
„ grazing	20,826	24,644
Other offences	3,991	4,771
Total	59,989	67,646

It is impossible to give reasons for these statistical variations. The case of each Province or even District presents different conditions which Local Governments treat, after due investigation, with punitive or alleviating measures suited to the circumstances.

(*b*) Protection from Fire.

[*Vide* Appendix XIII.]

18. The area brought under systematic fire protection was 40,073 square miles or about 500 square miles more than in 1904-05. The percentage of area successfully protected was 93·5 against 95·4 in that year. The area under special protection amounted to 43·3 per cent. of the total area of reserved forests; but it may not be inferred that the whole forest area now unprotected is in need of special protection, for it appears that owing to various conditions, climatic and other, there is not much room left for further extension of systematic Fire Conservancy while it is probable that in many evergreen areas, some relaxation of the efforts of the Department in this direction may be justified in the future.

19. The following statement compares the results of the year with the percentages of the previous five years :—

Province.	Area in square miles.		Proportion of forests under fire protection to total area of reserves.	Percentage of failure to area attempted to be protected.	
	Attempted.	Protected.		Average of past five years to 1905.	1905-06.
Bengal	1,889	1,822	44·3	2·9	3·5
United Provinces . . .	3,198	3,054	78	1·5	4·5
Punjab	(*a*)868	835	37	1·2	3·8
Burma	8,214	7,382	40·2	11·4	10·1
Eastern Bengal and Assam .	1,392	1,387	23	3·0	0·4
Central Provinces including Berar.	(*b*)7,723	7,450	35	3·0	3·5
Coorg	208	207	41	1·1	0·5
North-West Frontier . .	83	83	35	6·2	...
Ajmer	142	140	100	0·8	1·4
Total Bengal	23,717	22,360	48·1	3·45	3·46
Madras	7,202	6,772	39·9	5·4	5·9
Bombay	9,154	8,326	67·7	12·9	9·0
Grand Total, 1905-06 .	40,073	37,458	43·3	7·3	6·5
„ „ 1904-05 .	39,464	37,657	43	7·7	4·6

(*a*) Excludes 10 square miles not under systematic protection.
(*b*) „ 2,710 square miles of partially protected areas.

Except in *Eastern Bengal and Assam*, *Coorg*, the *North-West Frontier Province* and *Ajmer*, the results of the year's work were less satisfactory than in the previous year, although the percentage of failures in the forests of the Bengal Presidency differed from the quinquennial average by only ·01 per cent. The unusually severe and prolonged hot weather rendered success extremely difficult and considering the conditions, results may generally be regarded as satisfactory. In *Bombay*, although the total percentage burnt differs little from that of the previous year, it is noted that in *Sind* favourable inundations greatly assisted protective measures. In the *Central Circle* the area burnt exceeded that of the previous year by 72 per cent.

20. The classification of fires according to their origin is given for each forest circle in Appendix XIII. The total number of forest fires was 4,892 compared with 4,248 in the previous year, but there was a satisfactory falling off in the number of fires due to the carelessness of the forest staff and of outsiders. A noticeable feature of the year's working is the number of fires ascribed to intention or malice, which rose from 488 in the previous year to 1,887. The increase was almost general but in *Bombay* the corresponding figures stand at 57 and 1,283. If these figures are reliable, the matter merits special investigation as to whether the people are actuated by necessity or merely by disapprobation of the forest laws.

(*c*) Protection from Cattle.

[*Vide* Appendices XIV and XV.]

21. Out of a total forest area of 233,651 square miles, 38,748 square miles or 16 per cent. remained closed to all animals and 16,239 or 7 per cent. to browsers only. Thus 77 per cent. of the total area was open to all animals. Buffaloes, cows, goats and sheep, camels and other animals to the number of over $13\frac{4}{5}$ millions obtained pasture in State forests and of these, $7\frac{4}{5}$ millions paid full rates, $2\frac{4}{5}$ millions paid privileged rates, more than two millions were admitted by right under settlement and over one million during the pleasure of the Government.

There was an increase in the number of cattle impounded, the total being 541,626 compared with 535,328 in the previous year, but the average of the past three years was not exceeded. In *Bengal* the numbers fell to 52,291 compared with 56,523 in 1904-05 but rose in *Madras* to 230,796 and in *Bombay* to 258,539 or by about 2,500 and 8,000 head respectively.

(*d*) Protection against injury from natural causes.

22. The most serious causes of injury reported are frost, snow, drought, climbers, insects and wild animals. The result of the serious frosts of February 1905 is still apparent in the affected areas and will remain for many years to come; the following abstracts from Provincial reports deal briefly with the subject.

In *Bengal* climber cutting extended over a smaller area than in the previous year, the figures showing 16,410 acres as compared with 24,617 acres in 1904-05. Severe storms caused considerable damage in Singbhum, and Puri. The previous year's frosts were ascertained to have affected about 20 per cent. of the *sál* area in Palamau, while in the Mal plantation the depredations of wild elephants render the continuation of the work of doubtful expediency. Barking deer are again stated to have done damage in Darjeeling.

In the *United Provinces* severe frosts again occurred. In the Eastern Circle it was noted that the regrowth of the trees injured in the previous year was again cut back by frost thus intensifying and prolonging the injury. In the Cis-Sarda forests coppice growth was very largely killed back in spite of the maintenance of a full number of standards, and

even high forest under treatment by improvement fellings suffered considerable injury. Attention is being everywhere given to the cutting of climbers.

In the *Punjab* recovery from the previous year's frosts is progressing slowly. In Chamba and Kulu snow caused injury to young deodar poles but the thinning of thickets has minimised this danger. Fungoid diseases are causing injury to the *deodar* in Kulu and to *Pinus excelsa* in Simla.

In *Burma* climber cutting was carried out over large areas, mainly in conjunction with girdlings or improvement fellings under working-plans. The teak plantations in Tharrawaddy, Zigon and Rangoon were as usual attacked by the defoliator, *Hyblæa puera,* while in Pyinmana this insect was noticed in large numbers both in reserved and unclassed forests. *Padouk* seedlings in the Tenasserim Circle were damaged by deer and in the Toungoo Division by a weevil which rings the young shoots.

In the *Central Provinces* the injury caused by the great drought of 1900 followed by seasons of insufficient rainfall and the phenomenal frosts of 1905 is everywhere noticeable. In the Northern Circle an increase in the number of standards, hitherto considered to be sufficient, over coppice is suggested as a means of reducing injury from frost. In the Southern Circle as in many other localities frost prevents the ingress of *sâl* into the large blanks; it is probable that to afforest these areas with the more valuable species steps will first have to be taken to encourage the growth of quick growing trees of inferior value which are not so much influenced by low temperatures.

In *Eastern Bengal and Assam* a defoliating caterpillar, *Gunda Sikkima,* caused injury in the *Ficus elastica* plantation at Charduar. Climbers were cut over 17,838 acres at a cost of R4,011 bút this important operation is apparently still much neglected.

In *Coorg* the spread of the *spike* disease of sandal is said to be most efficaciously arrested by immediately uprooting the attacked trees. The extirpation of *lantana* presents extreme difficulty in so moist a climate. Cutting, burning and uprooting of stumps is followed by a dense seedling growth almost as impenetrable as the original crop, and labour is again required to pull up the seedlings, after the first monsoon and before the plant again seeds.

In *Madras* plantations suffered from fungoid and insect attack while sandal also was attacked by *spike* disease. The danger to which pure crops, especially of exotic and even indigenous species, are exposed is exemplified in some of the Provincial Reports and the question of suitable mixture of species is one which would repay investigation.

In *Bombay* climber cutting was carried out over extensive areas, the guards participating in this work. *Lantana* is said to usurp the ground in the fellings in Belgaum and Dharwar, while in Sind a similar danger threatens in *Sar* grass which arrests the reproduction of *babul.*

4.—Sylviculture.

(*a*) Natural Reproduction.

23. This all-important subject on which the timber supply of the future must depend has apparently received detailed attention in all circles. The effect of frost has been referred to in the foregoing section, and it has been noted that the effect of fire protection in moist forests has produced results which could not be fully foreseen but which now demand the most careful study, in order to maintain and increase the proportion of the more valuable kinds of timber.

24. In *Bengal* the reproduction of *sâl* is said to be excellent in the fire protected tracts of Chota Nagpur and Orissa where it is rapidly spreading over the blanks. In the Santhal Parganas *sâl* seedlings are scarce in spite of profuse flowering. In the moist forests of the sub-Himalayan tract, the inroads of quick growing evergreen scrub, hitherto checked by the annual fires, has produced conditions unfavourable to the development of *sâl* seedlings.

In *Eastern Bengal and Assam* the *sâl* is of the type last referred to and suffers even more from the dense undergrowth. Experiments are being made to test the result of fire on the undergrowth, but it is as yet too early to make any deductions.

In the *United Provinces* the *conifers* and broad leaved trees of the hill forests seeded badly; in the plains the *sâl* seeded fairly in the Western and

abundantly in the Eastern Circle. Germination was not however satisfactory probably owing to the severe frosts affecting the vitality of the trees. In the drier and open forests of Pilibit and Bhira, where coarse grass and poor soil prevail, natural regeneration is always poor. In parts of Gonda grazing is impeding reproduction which is excellent in the closed areas. Reproduction by coppice is generally good, although frosts are said to cause injury unless a large number of standards is maintained.

In the *Central Provinces* the combination of frost and drought resulted in conditions unfavourable for regeneration, but except in localities exposed to drawbacks, reproduction by coppice was satisfactory.

In *Burma* while protection from fire has resulted in marked benefit in the drier forests, it is remarked that the dense undergrowth and unbroken canopy of bamboos in the moist forests resulting from successful fire protection do not admit of adequate reproduction. The subject is being carefully investigated. The flowering of *tinwa* bamboo (*Cephalostachyum peryracile*) in the Northern Circle afforded an opportunity for systematic preparations to assist reproduction.

In *Madras* natural regeneration in the moist forests was as usual most prolific and satisfactory. In the dry forests the year was generally unfavourable owing to the short rainfall and prolonged hot weather. In such forests, the shrubby growth following fire protection helps the seedlings to establish themselves, provided cattle are excluded.

In *Bombay* conditions were generally unfavourable for natural reproduction, except in Sind where abnormal floods assisted the *babul* and *tamarisk*. Protection from fire and cattle has increased the number of teak seedlings in the Central Circle and in Surat, Panch Mahals and Kanara, but it would appear that more effective protection against all causes of injury is necessary for the welfare of these forests.

(*b*) Artificial Reproduction.

[*Vide* Appendix XVI.]

25. The total area of regular and taungya plantations fell from 143,754 acres in the previous year to 136,528. The decrease was mainly due to the abandonment of 3,516 acres in the Central Circle of *Bombay* and to the exclusion of "topes" in *Madras* which were included in the returns of 1904-05.

26. The following is a brief abstract of the progress made in the different Provinces :—

In *Bengal* an apparent reduction is due to the transfer of the Eastern Bengal Districts to the new province. New work consisted of the extension of rubber plantations in the Darjeeling District and of the teak plantations in Puri, in all 255 acres were added. Two-thirds of the teak planted in Puri died back but it is hoped that they will throw out new shoots. Besides the above, 32 acres of cantonment land at Darjeeling were planted up at the expense of the Department.

In the *United Provinces* 172 acres were planted with *deodar, chir,* etc., in Naini Tal and 80 acres excluded in the Siwalik Division, the plantation now forming part of the surrounding forest. The total area of plantations was brought up to 3,519 acres.

In the *Punjab* the established plantations at Sabathu and Jatogh aggregating 470 acres, were transferred to forests, the area under plantations being thereby reduced to 507 acres.

In *Burma* the total area of plantations rose to 76,384 acres of which 70,555 are taungyas 2,255 acres of this class being added during the year. Five hundred and fifty acres of regular plantations were abandoned and 213 added, the balance of this class of plantation at the end of the year standing at 5,829 acres. Schemes to regulate thinnings in the older plantations were

under preparation, but this work would seem to have been much neglected in the past owing to inadequacy of the staff.

No extensions were made to the Charduar and Kulsi rubber plantations of *Assam*, where work was limited to maintenance and the clearance of large trees between the lines of rubber trees. The Kulsi teak plantations of 171 acres should have been thinned but only 27 acres were worked over.

The year's work in the *Central Provinces* was mainly experimental but conditions were generally unfavourable and results partly or wholly failed.

In *Coorg* the restoration of unsuccessful plantations was commenced, and 110 acres added to taungyas. The total area, including regular plantations, at the end of the year was 3,129 acres.

In the *Andamans* 200 acres of taungyas were added, mainly of *padauk*.

In *Madras* regular plantations were extended by 969 acres while 609 acres were excluded. Twenty-five acres were added to taungyas, the total area at the close of the year being 26,087 acres.

The *Bombay* Reports still fail to show the difference between regular and other plantations, and so far as can be gathered cultural operations are sometimes entered in Form 61 as regular plantations. The additions are stated to be 9,325 acres and exclusions 3,752 leaving a balance of 20,679 acres at the close of the year.

27. If the sum of R82,645 spent on the Mergui plantation be excluded as incurred on an experimental concern, which is now being leased to private individuals, the total expenditure on plantation work amounted to R1,57,961 as compared with R1,32,008 in the previous year.

28. In addition to the ordinary plantation work, operations for the introduction of valuable species, the filling up of blanks, and sowings or plantings in areas where bamboo has flowered, known as " cultural operations, " were undertaken in most provinces.

In *Bengal*, 766 acres were dealt with mainly in the Darjeeling and Tista Divisions under the prescribed plans. Blanks were filled up by sowing or planting, and cleanings were carried out over 463 miles of lines formerly planted. In Tista the attempt to introduce valuable kinds was a failure owing to damage by wild animals. In Puri the introduction of *Cassia siamea* in coppice coupes was a partial failure owing to an unfavourable season.

In the *United Provinces* extensive operations were undertaken chiefly in the direction of filling up blanks or introducing the most valuable species. In Naini Tal and Jaunsar a large number of *deodar* seedlings were planted out.

In the *Punjab* the operations were mainly on the same lines.

In *Burma* teak and cutch seeds were sown in blanks and in areas where bamboo had flowered. An area of 345 acres so treated in the Rangoon Division was abandoned but results as a rule were successful. The experimental sowings and dibblings in Upper Burma over areas previously burnt over do not as yet afford conclusive deductions.

In the *Central Provinces* work was centered in the agri-sylvicultural operations in Berar. In Chirori results were successful but in the Melghat tardiness and incompleteness in execution resulted in failure.

In *Madras* sowings and plantings of a great variety of species were undertaken with varying success. Drought usually accounted for failure. An attempt is being made to plant up the swamps of Geddassal with *Eucalyptus globulus*, and a nursery, so far very promising was established.

The raising of teak in nurseries for planting in the forests was continued in *Bombay*, more than 200,000 teak plants were thus planted in the Northern Circle. In the Central and Southern Circles 64 per cent. of the transplants survived in spite of unfavourable weather.

29. The expenditure on cultural operations in the different Provinces was as follows:—

	₹
Bengal	6,368
United Provinces	2,549
Punjab	6,397
Burma	14,041
Eastern Bengal and Assam	674
Central Provinces	3,373
Coorg	285
North-West Frontier Province	517
Ajmer	...
Baluchistan	12
Andamans	530
Total	34,746
Madras	10,643
Bombay	11,660
Grand Total	57,049

(*c*) Operations for the improvement of the growing stock.

30. These comprise operations the outturn of which is usually unsaleable, such as weedings, cleanings, thinnings, improvement fellings and girdlings, and are therefore distinct from works of formation and exploitation. The following is a brief abstract of the year's work.

In *Bengal* 8,810 acres were cleaned for the benefit of the existing stock in addition to much work of this nature carried out by the staff. The attention paid to these operations is considered by the Conservator to be still insufficient.

In the *United Provinces* work was on a larger scale and more systematic than in other provinces. Weedings, cleanings and thinnings were undertaken in nearly all divisions together with improvement fellings or girdlings in accordance with the prescriptions of working-plans.

In the *Punjab* cleanings and early thinnings were conducted mainly in favour of deodar, the largest area dealt with in any division amounted to 2,630 acres in Bashahr.

Nearly 68,000 acres were worked over in *Burma* under Improvement Fellings. Ficus bound trees were also felled over extensive areas but measures are generally of a tentative nature owing to want of adequate supervision.

It is regrettable that no operations for the improvement of the growing stock could be undertaken in *Eastern Bengal and Assam.* The rapid growth of inferior kinds in so moist a climate clearly necessitates extensive measures to benefit the valuable species.

In the *Central Provinces* improvement fellings, girdlings and cutting back of injured trees were undertaken, the largest area dealt with being in the Melghat where 49 square miles are said to have been so treated.

In *Madras* improvement fellings, thinnings and cleanings were extensively carried out and measures were taken to eradicate fungoid and other diseases.

In *Bombay* weedings and thinnings proceeded in *Babul* coupes and valuable trees were relieved of pressure by the felling or girdling of inferior species over extensive areas.

31. It may be said that the value of these operations is now generally realised, although the extent of the operations and sometimes also the manner of dealing with the work is not so satisfactory as might be desired. In the great majority of cases this is referable to the weakness of the trained staff in all branches of the Department, for it is not yet apparently fully recognised that to tend and exploit the crop which for the past 50 years we have been fostering, and to collect the revenue which is now at our disposal, a larger number of officers is necessary than at a time when protection and organization alone occupied the attention of the Forest Department. In order to

continue the progress already made not only cultural works on a large scale are now necessary, but repeated cleanings and weedings are essential in the altered conditions of growth which have often been the result of the attempt to increase the quality and quantity of the outturn of the more valuable timber.

(*d*) Experiments.

32. In the Sambalpur Division of Bengal 1,900 acres of grass were burnt in the winter with a view to compare the growth on this and unburnt areas. There was however no remarkable production of early grass until the rains set in. The experiment will be repeated.

In the *United Provinces*, the experiments to introduce exotics in Naini Tal were continued. The *Hardy Catalpa* and *Knobcone* pine succeeded best. Exotic spruce and pine were noticed to be peculiarly prone to insect attack. Experiments in lac propagation were made in the Siwaliks, and also experiments to test the effect of resin tapping on the growth and weight of chir timber were conducted in Naini Tal. It was proved that tapping for 5 consecutive years with a 10 years' rest did not affect the weight of the timber.

In the *Punjab*, the introduction of *Robinia* in 1897 to clothe the lower slopes has been pronounced a failure, the tree thriving only at elevations above 5,000 feet. The *Catalpa* seems to promise best of the exotics. The introduction of *Eucalyptus globulus* and *Eucalyptus rostrata* was proceeded with, the latter germinated sparingly, plants were pricked out in nurseries, in which several thousands of *Eucalyptus globulus* were thriving.

Work was continued in the Mergui rubber plantation in *Burma*, the expenditure of the year was R82,645 bringing the total to date to R2,29,781, for which sum 1,957 acres have been planted up. Tapping operations showed that trees between 4 and 5 feet in girth yield an average of 18·08 ozz. of rubber per tree while the yield for trees over 5 feet was 30·98 ozz. The average price of rubber sold in London was 5*s*. 5*d*. per lb.

Sylvicultural experiments were commenced in the *Central Provinces*, the most important being directed to test (*a*) the effect of the season of felling on coppice reproduction, (*b*) the effect of fire on the existing crop and its reproduction, (*c*) the value of ploughing and sowing as a cheap method of afforesting blanks, to discover (*d*) the reason for the absence of *sál* reproduction in Mandla. The sandal introduced into Chanda was progressing well, but in Wun was regarded as a failure.

In *Madras* experiments were continued with exotics but on the whole proved disappointing. Some success was achieved with mahogany, camphor and American pines. In *Bombay* measurements were continued to test the relative depth of water in wells situated outside and inside the forest. Experiments were also undertaken to test the feasibility of growing *Ceara Rubber*, the germination of which was on the whole successful and growth rapid, but few plants survived after planting in the open. *Ficus elastica* seed obtained from Assam failed to germinate.

5.—Exploitation.

(*Vide* Appendix XVIII.)

(*a*) System of Management.

33. The clear fellings carried out during the year were mainly restricted to the exploitation of plantations worked under a short rotation and to areas under Babul (*Acacia indica*) in Bombay. The abnormal condition of the

forest crop points to the general adoption of methods which will gradually improve the factors of the locality and which are suitable to the conditions of a demand, which often results in only one or two of a number of species being utilized. For these reasons the selection method has been adopted over far the larger area of forest under systematic management. Improvement fellings are also provisionally prescribed in order to prepare the growing stock for the introduction of a permanent method, and large areas are now under this treatment. In places where market or other conditions indicate the necessity for this treatment, the coppice system has been introduced. Working-plans prescribe the various systems of management which are considered to suit local circumstances and as a rule they have been worked up to in all Provinces, although, in some cases, inaccessibility or absence of demand have precluded utilization of the entire outturn.

(*b*) Agency of exploitation.

(*Vide* Appendix XVIII.)

(*i*) *Departmental Agency and* (*ii*) *Purchasers.*

34. Out of a total outturn of timber of 67¾ million cubic feet, 10¼ million were removed by Departmental Agency, 51 million by purchasers, 1¾ million by free grantees and 4¾ million by right holders. Although it is the policy to relieve, as far as possible, the Department of timber operations and to substitute private enterprise, there was no increase in the outturn by purchasers compared with the previous year. Timber merchants do not readily extend their operations to inaccessible parts and until such forests have been opened out by suitable communications, private enterprise will not altogether supplant departmental agency. The matter is of importance because the staff is designed to meet the demands of the Forests in protection and improvement and is insufficient to undertake felling, conversion and removal of the produce.

The outturn of fuel was 171½ million cubic feet or nearly 14 million cubic feet less than in 1904-05. Twenty million cubic feet were removed by Government Agency, 88 million cubic feet by purchasers, 6½ million by free grantees and 57 million by rightholders.

The total yield of bamboos was 210 millions of which 3¾ millions were removed departmentally, 3¼ millions by free grantees and 17¾ millions by right holders, the rest being removed by purchasers.

The returns for minor produce including grass and grazing show also that more than two-thirds of the produce was removed by purchasers. Out of a total value of 60 lakhs, only 5 lakhs were removed by Government Agency, about 4½ by free grantees and 9 lakhs by right holders.

(*iii*) *Rights and Privileges.*

35. The quantity of material removed from the forests by right and privilege holders was as follows :—

Timber 6½ million cubic feet.
Fuel 63¼ do. do.
Bamboos 20¾ millions.

To this should be added minor produce including grass and grazing to the value of nearly 13½ lakhs of rupees.

(*iv*) *Free Grants.*

36. Free grants were given in all provinces to relieve distress caused by famine, fire, flood, earthquakes and for works of public utility erected by

public-spirited persons. Relief was afforded to sufferers from the earthquake of 1905 in the Punjab, and in Burma no less than 127,919 cubic feet of teak and 241,409 cubic feet of reserved woods were granted for the construction of monasteries, bridges, village rest houses and other public works.

(*e*) Outturn and sources of Forest Produce.

(*Vide* Appendix XVII.)

37. The outturn from all classes of forests under the control of the Forest Department of timber and fuel, bamboos and minor produce is compared with that of the previous year in the following statement:—

Presidency.		Timber and fuel.	Bamboos.	Minor produce.
		Cubic feet.	No.	₹
Bengal	1905-06	179,761,727	164,298,466	36,15,587
	1904-05	182,248,460	170,213,114	33,48,540
Madras	1905-06	22,514,748	32,054,025	14,01,348
	1904-05	23,913,211	35,788,482	13,11,827
Bombay	1905-06	44,058,365	13,821,289	4,95,884
	1904-05	45,406,605	9,259,583	11,56,559
Grand Total	1905-06	246,334,840	210,173,780	55,12,819
	1904-05	251,568,276	215,261,179	58,16,926

38. There was a falling off in output of over 5 million cubic feet of timber and fuel, of more than 5 million bamboos and of over 3 lakhs of rupees in the value of minor produce.

In the *Bengal Circle* an increase under timber and a decrease under fuel resulted in a deficit of over half a million cubic feet. In the Sunderbans there was considerably less demand for fuel of inferior species, coke now being largely in use in Calcutta.

The *United Provinces* showed an increased outurn of timber and fuel from Reserves of about ½ million cubic feet.

In the *Punjab* there was an increase of 4 million cubic feet from Reserves and over ½ a million from unclassed Forests.

In *Burma* while there was no appreciable difference in the outturn from Reserves, there was a falling off of 10 million cubic feet from unclassed Forests and it is this large deficit, said to be due to cattle disease and plague, which mainly affects the year's decrease.

In *Madras* a decrease of nearly one and-a-half million cubic feet of timber and fuel is ascribed mainly to alterations in methods of disposal and conditions of sale.

In *Bombay* an almost similar decrease is said to be chiefly caused by the completion of the fellings of dead and dying teak and to total suspension of coupe sales in the North Thana Division.

The fall in the output of bamboos in the Bengal Presidency was principally due to decreased extraction in the Bengal Circle and in the Central Provinces. There was an increase of over 4½ millions in Bombay which is unexplained as also a fall in the value of minor produce of 6½ lakhs of Rupees.

CHAPTER III.

FINANCIAL RESULTS.

[*Vide* Appendices XIX to XXIII.]

39. The Gross Revenue, Expenditure, Surplus and the proportion of Expenditure to Gross Revenue of the last 33 financial years are shown in the table below:—

Quinquennial periods.	Gross Revenue.	Expenditure.	Surplus.	Proportion of Expenditure to Gross Revenue.
	℟	℟	℟	Per cent.
1873-74 to 1877-78 . .	67,23,191	44,76,303	22,46,888	66
1878-79 to 1882-83 . .	79,15,956	52,09,538	27,06,418	66
1883-84 to 1887-88 . .	1,10,59,434	71,42,382	39,17,052	64
1888-89 to 1892-93 . .	1,51,86,115	82,61,176	69,24,939	55
1893-94 to 1897-98 . .	1,74,50,655	96,57,496	77,93,159	55
1898-99 to 1902-03 . .	1,90,22,776	1,08,42,872	81,79,904	57
1903-04 . . .	2,22,16,747	1,21,66,993	1,00,49,754	55
1904-05 . . .	2,40,29,950	1,29,67,856	1,10,62,094	54
1905-06 . . .	2,66,74,593	1,42,58,521	1,24,16,072	53

The gross revenue and the surplus are the highest recorded; the increases over last year being about 26½ and 13½ lakhs respectively and although there has been an increase of expenditure of nearly 13 lakhs, the proportion of expenditure to gross revenue is the lowest on record.

The gross revenue of the Department has approximately quadrupled during the past 33 years while the surplus has during that period increased six-fold. In order to deal with a steadily increasing area and to execute works essential to a realization of the yield, the expenditure too has, during that time, increased about 3¼ times.

The above figures exclude the value of forest produce granted free or at reduced rates. The estimated value of such concessions amounted during the year to about 35 lakhs of rupees. This direct relief is therefore outside the contribution of 124 lakhs to the State revenues.

40. It was stated in the last chapter that there had been a reduced output of material, the increased receipts therefore lead to the inference that the value of forest produce has generally risen and this should be expected to be continuously the case now that the Department is entering on the exploitation of areas which have been under protection for many years. With the exception of Ajmer and Baluchistan all provinces yielded a surplus. In *Bengal* although three of the most important divisions were transferred to the new province, the fall in gross receipts, compared with the average of the preceding 5 years, was only about one lakh and the surplus fell by only ℟21,000. The most remarkable increase of revenue was of more than 27 lakhs in *Burma*, but there were also large increases in the following provinces, *Central*

Provinces (9 lakhs), *Bombay* (8 lakhs), *Eastern Bengal and Assam* (5 lakhs), *United Provinces* (4½ lakhs), *Madras* (3½ lakhs) *Punjab* and *Andamans* (each 2 lakhs). The net revenue per square mile of land under the control of the Forest Department was *R296* in Coorg, *R247* in the United Provinces, *R142* in the North-West Frontier Province, R126 in the Andamans, *R69* in Bengal and *R52* in Burma, *Assam* yielding only R18 per square mile. There seems no reason why, given an adequate Forest Staff, a demand which must increase with the prosperity and population of the country, and the utilization of hitherto neglected products, the revenue per square mile should not steadily and largely increase in the future. It appears probable that the Indian State Forests are now entering upon a new phase of their existence when, provided that the means of regulating the crop and harvesting the outturn are forthcoming, the profit to the State will increase more rapidly than it has hitherto done.

41. The following statement shows the financial results of the working of the forests after deducting capital expenditure not yielding an immediate return :—

		R
Gross Revenue		2,66,74,593
Value of produce granted free or at reduced rates		34,96,073
Total value of yield		3,01,70,666
	R	
Gross Expenditure	1,42,58,521	
Deduct expenditure not yielding an immediate return :—		
(*a*) Roads and Buildings	8,63,004	
(*b*) Cultural operations	5,18,295	
(*c*) Working-Plans	86,741	
(*d*) Settlements	79,366	
(*e*) Surveys	3,26,091	
(*f*) Demarcation	1,33,536	
TOTAL	20,07,033	
Balance of direct revenue producing expenditure		1,22,51,488
Surplus of revenue over expenditure directly chargeable to revenue		1,79,19,178

CHAPTER IV.

GENERAL.

1.—Administration.

42. The post of Inspector General of Forests was held by Mr. S. Eardley-Wilmot throughout the year. Ten Conservators were on leave during a portion or the whole of the year.

The cadre of the Forest Department was strengthened by the addition of two posts to the Imperial and two posts to the Provincial Service, in order to complete the staff of the Imperial Forest College and Research Institute.

The cadre of the Imperial Forest Service in Madras was increased by two posts which were sanctioned for a period of five years. Two temporary appointments were created in the Bombay Provincial Service to be retained so long as vacancies in the sanctioned cadre of the Imperial Service remained unfilled.

As part of a general scheme for effecting an improvement in the conditions of service in the Imperial Forest Service, the pay of the Inspector General, of Chief Conservators and of Conservators was raised, while exchange compensation in all cases was discontinued. Five officers of the Imperial and four of the Provincial Service, retired and two of the Imperial and one of the Provincial Service died during the year. One officer of the Imperial Service was permanently transferred to Colonial Service in South Nigeria. The services of one officer of the Provincial Service were dispensed with.

Officers on Foreign Service.

The following statement shows the number of officers on Foreign Service in India, in British Colonies and serving under other Governments:—

In India.

Imperial Service.

1. Mr. A. W. Blunt (Central Provinces), Kashmir.
2. „ R. M. Williamson (Central Provinces), Central India.

Provincial Service.

1. Saiyid Mehdi Hasan (United Provinces), Kashmir.
2. Lala Daulat Ram (Punjab), Kashmir.
3. „ Sundar Das (Punjab), Kotah State.
4. „ Jai Kishen (Punjab), Jubal State.
5. Mr. Keshva Nand (United Provinces), Kashmir.
6. Pandit Sada Nand Gairola (United Provinces), Tehri State.
7. Mr. Fazl-ud-din (Punjab), Patiala State.
8. Rai Bahadur M. Muttannah (Madras), Mysore.
9. Mr. R. C. Eber-Hardie (Madras), Jeypore.
10. „ V. Alwar Chetti (Madras) Cochin.
11. Bhagwandas Harkisandas Dalal (Bombay), Rajpipli.
12. Mr. G. O. Coombs (United Provinces), Alwar State.
13. Pandit Thakur Das (Punjab), Indore State.
14. J. M. Blanchfield (United Provinces), Bundelkand State.
15. Lala Mulraj (Punjab), Partabgarh, Dungarpur and Bunswara States.

In the Colonies.

Imperial Service.	*Provincial Service.*
1. Mr.* H. N. Thompson (Burma), South Nigeria.	1. Mr. N. C. McLeod (Central Provinces), South Nigeria.
2. „ T. J. Campbell (United Provinces), Ceylon.	

Under other Governments.

1. Mr. W. F. Lloyd (Bengal), Siam.	1. Mr. R. C. Thompson (Central Provinces), Siam.
	2. „ S. A. Wood (Burma), Soudan.

2.—Exports of Forest Produce.

[*Vide* Appendix XXIV.]

43. The total value of exports of forest products at ports of shipment amounted to 469 lakhs of rupees as compared with 442 lakhs in 1904-05, 445 lakhs in 1903-04 and 320 lakhs in 1902-03.

Two hundred and seventy-nine tons of caoutchouc were exported as against 211 tons in 1904-05, 90 tons in 1903-04 and 52 tons in 1902-03. These figures tend to show an increase in the sources of supply of this article, which will doubtless be still further marked when the artificial plantations come into full bearing.

The quantity of lac exported during the year was 13,723 tons against an average of 10,988 tons for the five preceding years. The total value of this article rose during the year from 308 lakhs to 318 lakhs of rupees. Hitherto the cultivation and collection of this valuable commodity has been chiefly in the hands of the aboriginal races and carried on in the most primitive method. But the growing demand has drawn attention to the importance of careful cultivation on improved and scientific lines, and a beginning in systematic cultivation has already been made in the reserved forests of the Central Provinces. The results of the investigations made by the Forest Department will shortly be published in the Indian Forest Records and it is to be hoped that they will give an impetus to the rapid development of this much neglected industry.

Exports of teak during the year amounted to 52,768 tons valued at R70½ lakhs as against 46,912 tons valued at R60 lakhs in 1904-05. But the year's exports still show a decline of 10,000 tons from the average of the past five years. The recent arrangements made in Burma for the encouragement of private enterprise in the exploitation of the Government teak forests will doubtless show beneficial results in the future.

3.—Recruitment and Technical Education.

44. Eight students who had completed the forestry course at Cooper's Hill College were appointed to be Assistant Conservators of Forests and arrived in India in October and November 1905. Three of these were posted to the Punjab, two each to Burma and the Central Provinces and one to Bengal.

Eleven probationers were admitted in 1905 and fourteen candidates for the Indian Forest Service were selected in England by the Secretary of State in 1906 and are now under training at Oxford.

The status of the Imperial Forest School, Dehra Dun, was raised to that of Imperial Forest College and a Forest Research Institute was created in connection therewith. The staff consists of six officers of the Imperial Service

* Services permanently transferred to South Nigeria during the year.

holding the posts of Sylviculturist, Superintendent of Forest Working-Plans, Forest Zoologist, Forest Botanist, Forest Chemist and Forest Economist, and of four Provincial Forest Service officers who are Instructors in the College and attend to the practical training of the students in the forests. One of the Imperial officers, in addition to his other duties, holds the post of Principal of the College.

The Directorship of the School was held by Mr. A. G. Hobart-Hampden from 1st July 1905 until the 8th April 1906, when, the status of the School having been raised to that of a College, he was appointed Principal and Imperial Sylviculturist, but he shortly after proceeded on furlough and was succeeded by Mr. J. H. Lace. The other appointments on the Imperial staff of the College were held by the following officers :—

Mr. E. P. Stebbing, Forest Zoologist.
„ H. H. Haines, „ Botanist.
„ R. S. Troup, „ Economist.
„ A. M. F. Caccia, Superintendent of Working-Plans.

The post of Forest Chemist remained vacant during the year under report, arrangements having been since made to train a Forest officer in England.

At the Entrance Examination to the Upper Class of the Forest School held in October 1905, 83 candidates presented themselves, of whom 42 qualified for admission, but only 32 joined the College in April 1906 together with nine who had passed in previous years and four, including three from the Federated Malay States, who were specially exempted from passing the Entrance Examination.

Mr. S. Carr continued to fill the post of Director of the Burma Forest School. Fifteen students were admitted to that School in December 1905.

4.—Forest Administration in Native States.

45. *Jammu and Kashmir.*—The State forests continued under the administration of Mr. A. W. Blunt of the Indian Forest Service.

The total area of State forests increased from 2,764 to 2,963 square miles, of which 2,315 square miles were demarcated, 254 square miles partially demarcated and 394 square miles remained undemarcated at the close of the year. The increase is due partly to afforestment of new areas and partly to correction of areas after survey. No settlements were completed during the year although a special Settlement Commissioner was engaged on the revision of forest boundaries—a task in which some progress was made.

An area of 162 square miles with 508 miles of boundaries was surveyed at a cost of R1,854 or about R11 per square mile.

The collection of data for the Working-Plan of the Upper Chenab Valley Forests was completed. 560 square miles were examined, of which 209 square miles containing deodar were described in detail and the stock enumerated. The Working-Plan report is under compilation.

The expenditure on roads was R4,827 compared with R3,452 in the previous year. The amount spent on buildings rose from R3,602 to R6,583. It is said that there is room for expansion in both these important works.

The number of Forest offences was 469 against 414 in 1904-05. Including 69 cases pending from the previous year the total was 538, 455 of which were disposed of. The percentage of convictions to cases taken into Court was 33,

250 cases involving 366 persons were compounded, the average per case being R4-12-9 and R3-4-5 per person.

There were 125 fires against 97 in 1904-05, the area burnt being $5\frac{1}{2}$ square miles, the same as in the previous year. Only 43 acres were burnt in the comparatively moist forests of the Kashmir valley, the rest of the fires occurred in the dry forests of Jammu. Natural reproduction is said to be seriously hampered by excessive grazing, the Durbar has not yet accorded its sanction to the proposals for the regulation and control of this important question.

Until Working-Plans are introduced it is considered advisable to continue departmental working. In India the rapid compilation of regular Working-Plans and the cessation of departmental works have, however, given much improved results in Forest management.

The total outturn of major produce was 38 million cubic feet, 31 million cubic feet consisting of fuel. Out of a total outturn of timber of $7\frac{1}{4}$ million cubic feet, $3\frac{1}{4}$ million or 45 per cent. was taken out by State Agency. Over $9\frac{1}{2}$ lakhs of cubic feet of timber are being supplied departmentally for the Electric Power plant at Rampore on the Jhelum.

The financial results showed a marked improvement. The gross Revenue being R$13\frac{1}{3}$ lakhs compared with R$9\frac{4}{5}$ in the previous year, the surplus being R$9\frac{1}{3}$ lakhs against R$6\frac{1}{5}$ lakhs. The total expenditure was R3,98,244 or about R30,000 more than in 1904-05. The percentages of expenditure and surplus to gross Revenue were 30 and 70, respectively. A good floating season resulted in a larger outturn of material which included a part of the previous year's yield, better prices also ruled on the Jhelum. The estimated value of free grants was R$6\frac{1}{3}$ lakhs so that the gross value of forest produce removed from the State forests was R$19\frac{2}{3}$ lakhs. The Inspector General of Forests made a tour in Kashmir and Jammu between the 24th September and 5th November 1905 and issued an Inspection Note advising on the future management of the State Forests.

46. *Mysore.*—The total area of the State forests in Mysore was increased by 157 square miles, thereby bringing up the total to 2,292 square miles. The percentage of area of State forests to that of the whole State is 7·78 and the Administration considers that further extension of the forest area is necessary. $157\frac{1}{2}$ square miles were finally settled and satisfactory progress was also made in surveys, 621 square miles of State forests being mapped. Owing to paucity of officers there remain large areas to be brought under regular Working-Plans, but provisional plans are in force for the forests not as yet under systematic management. Considerable progress was made in road work. 82 miles of roads were opened, the total expenditure being R13,051 compared with R8,758 in the previous year. The importance of extending communications is fully realized; the Mysore Government, however, quite correctly desire that this work should be organized according to a systematic programme. Exclusive of R18,360 debited to the Public Works Department Budget, a sum of R18,450 was spent on buildings against R8,152 in the previous year, a marked advance was therefore made in the important work of housing the Forest staff.

The number of Forest offences fell from 895 in 1904-05 to 865. Only 52 cases or 6 per cent. were taken into Court resulting in 30 convictions. 756 cases were compounded for R4,528.

The season was most unfavourable to fire protection owing to the prolounged drought. The area attempted to be protected was 1,915 square miles,

failures amounting to 116 square miles. The cost was R14,308, equivalent to R7-15-0 per square mile

Extensive measures were undertaken to stamp out the *spike* disease of sandal trees, no less than 2,86,962 trees, of which 95 per cent. consisted of saplings, being uprooted. By this means the disease in the Hassan District was confined to an area of about 2 square miles.

Climatic conditions were unfavourable to both natural and artificial reproduction, teak however suffered least. Energetic measures are being taken to sow or dibble sandal seed in suitable localities through the agency of the Revenue and Forest authorities, with the object of creating a supply independent of existing natural sources.

The financial results were satisfactory. The gross Revenue rose to R20,07,514 from R19,28,250 in the previous year and the surplus to R13,32,410 against R12,89,655. Charges were also higher than in 1904-05, the figures being R6,75,104 and R6,38,595, respectively. The ratio of expenditure to gross receipts was 33·6 per cent. The contribution to receipts from the sale of 2,466 tons of sandal was R12,52,394 or an average of R507 per ton, the highest price yet realized.

47. *Indore.*—The total area of forests is estimated at 2,860 square miles. 429 miles of boundary were cleared and surveyed. Until demarcation and surveys are completed it is stated that little progress can be made in Working-Plans as little demand appears to be yet made on the forests. Some advance was made in the erection of buildings for the staff. Systematic fire protection is being organized and some success has been attained, resulting in benefit to natural regeneration, particularly of *Hardwickia binata.* The importance of regulating cattle grazing is also realized.

Experiments were undertaken in propagating lac, the climatic conditions being generally favourable a large revenue should ultimately be realized from this product. The forests are mainly worked under the system of coppice with standards; there is a large demand for fuel in Mhow and Indore, which as yet the State forests have done little to supply. The output of timber and fuel was about a lakh of cubic feet, there being a fall under timber and an increase under fuel compared with the previous year.

The financial results show a total revenue of R190,916 or an increase of R19,631 over the previous year, expenditure amounted to R1,21,391 the surplus therefore was R69,517. Good progress appears to have been made in organizing the Department and the importance of forest conservancy is beginning to be realized.

48. In the *Nizam's Dominions** the estimated area of Reserved forests was 5,247 and of Protected forests 4,451 square miles. Some progress was made in demarcation, 228 miles of line were newly cleared and 430 of previously existing boundaries repaired.

The number of Forest offences was 8,812 or about 600 more than in the year previous. Only 13 were decided by the Courts, 5,197 were compounded, 134 acquitted, leaving 3,468 pending at the close. The area placed under fire protection was 507 or less than one-sixth of the Reserved area, 52 square miles were burnt, the expenditure was R3,403=R6-11-4 per square mile.

The incidence of grazing in the State forests is heavy. Grazing fees amounting to over a lakh were realized. Only 124 square miles were closed to all animals throughout and 119 for a portion of the year, 1,522 square miles were

*The report reviewed is for the year 8th, October 1904 to 8th October 1905.

closed to goats only. The effect of the heavy grazing combined with drought and fires is noticed to retard natural reproduction and a proper regulation of grazing is proposed. The total Forest revenue was nearly R6⅓ lakhs, being nearly half a lakh better than the previous year. The expenditure amounted to a little over R2 lakhs leaving a surplus of nearly R4⅓ lakhs which is about R⅔ lakh better than the previous year. The value of timber and fuel sold was over R2⅖ lakhs. More than a lakh was collected by the Revenue authorities exclusive of the value of grazing fees which as already stated exceeded a lakh.

The financial results are steadily improving but the Administration points out the necessity for improved communications and for the extension of *Babul* cultivation in certain districts. A local training class for lower subordinates, and the education at Dehra of the upper subordinates places His Highness the Nizam's Forest Department in a fair way to the constitution of an efficient service.

49. In the *Bhopawar Agency* a net increase of 195 square miles to the area in charge of the Forest Department brought up the total area to 1,949 square miles at the close of the year. Reserved forests have so far been constituted only in Dhar, Ali-Rajpur and Barwani. Forest Conservancy has only recently been introduced and progress in surveys and demarcation is as yet comparatively small. Working-Plans have not yet been introduced although compilation of statistics has been undertaken in Barwani. The susceptibilities of the Bhils are stated to require careful study in order to secure their sympathy. In the early years of Forest Conservency, it is probable that, as in British India some time must elapse before the important task of organization and protection is completed, meanwhile as suggested by the Political, Agent, demarcation can be pushed on together with the classification of forests in order to anticipate the time when increased demand will call for systematic working. The number of Forest offences was 144, or a little less than the results of the previous two years, the number of cases of injury by fire was 42, or one-fourth of the total—a high percentage.

The season was abnormally dry, little or no rain falling between September 1905 and June 1906. Fire protection was, therefore, less successful than in the previous year. Full protective measures were attempted over 1,233 square miles and partial measures over 716 square miles. In forests under the latter treatment, only the external boundaries are fire-traced. 62·3 per cent. of the first and 30 per cent. of the second class escaped fire. In Dhar there were 22 fires, of which 10 originated internally and 12 crossed external fire traces. The corresponding figures in Ali-Rajpur were 13 and 4. As pointed out by the Political Agent, repeated burning of external lines is essential to the reduction of fires crossing fire-lines, but supervision of the large numbers of people engaged in collecting minor produce and in herding cattle are equally necessary to minimize intentional firing.

The estimated outturn of timber and fuel from the eleven States was 1,841,834 cubic feet or nearly half a million cubic feet better than in 1904-05. By far the larger portion consists of fuel, the outturn of which reached 1,450,380 cubic feet, Dhar contributing 453,829 cubic feet, Barwani 304,165 cubic feet and Ali-Rajpur 249,484 cubic feet. 311,823 head of cattle were grazed, of which 190,000 were charged full rates and the rest privileged rates or free, the total value of grazing being R35,131.

. The financial results show, on the whole, steady progress; in two States only was there a fall in comparison with the previous year's figures. The gross Revenue realized was R1,40,860 being R28,000 better than the preceding year and more than double the average of the previous three years. Charges were R63,957 or about the same as in 1904-05, the surplus therefore was R76,903, being higher than the previous year by about R28,000 and some four times the previous triennial average.

The forests of the Bhopawar Agency appear to be now established on a sound financial footing; by an extension of organization and conservancy the steady increase of surplus should continue and the forests ultimately fulfil their functions as sources of benefit to the people of each State.

50. *Travancore.*—The total area under the control of the Forest and Cardamom Departments at the close of the year was 2,266 square miles of Reserved forests and 166 square miles of Reserved lands, the former figure being raised during the year under review by an additon of 21 square miles. Preliminary notifications issued for 9 square miles. Provision of grazing grounds was engaging the attention of the Administration.

Good progress was made in demarcation, but survey work was almost exclusively directed to valuation surveys of growing stock.

There was only a slight difference in the number of Forest offences, the figures falling from 697 to 659.

Fire protection, in spite of an unfavourable season, was fairly successful. Out of a total area of 1,930 square miles under protective treatment, only 59 square miles were burnt against 85 in the previous year.

The expenditure on communications and buildings was less than in 1904-05, falling from R21,000 to R13,339.

The area of plantations at the close of the year was 2,746 acres, 74 acres being added and 80 acres of teak dibblings excluded. The outturn of timber fell somewhat owing to some contractors failing to extract the quantities stipulated, the revenue suffered somewhat in consequence falling from R6,38,523 to R6,27,411. There was a corresponding fall in expenditure to R4,60,411. The surplus nevertheless rose by about $\frac{1}{3}$rd lakh but this was mainly due to reduced expenditure.

English units of measurement were introduced in place of the old system and the salaries of the upper grades of officers were improved. Steady progress has been made in the organization and working of the forests of Travancore.

51. The Forest Administration Report of the *Jaipur State* deals with the period of 17 months from 1st April 1905 to 31st August 1906. It therefore renders comparison of results somewhat difficult while the report itself does not convey much information. The area under the management of the Department was 255 square miles at the close of the year. Existing communications are said to be sufficient, a road recently constructed as a famine relief work aiding much in the export of forest produce. Seventeen cases were taken into Court and 601 involving 1,149 persons were compounded, the average amount of compensation per case being Rs. 1-15-0. Special leniency was shown on account of the famine. About one-third of the forest area was closed to browsers, scarcity of fodder necessitated the opening of the forests to cattle grazing on a large scale and 136,655 head of cattle were admitted. Drought and famine are usually conducive to forest fires and it is therefore a most satisfactory feature of the year's administration that the entire area

(173 square miles) under special protection is reported to have escaped fire. This result is stated to have been achieved without additional staff or expenditure. Drought and extensive grazing following on the severe frosts of 1905 operated against successful reproduction. The third class forests were thrown open to the sufferers from the famine for the removal of brushwood but it was found impossible to control the immense numbers who availed themselves of the concession.

The financial statement shows an increase during the period under review of R484 under revenue and of R355 under expenditure, the receipts amounted to R26,899 and the charges to R11,146.

52. *Cochin.*—The area under the control of the Forest Department was 605 square miles, the same as in the previous year. Preliminary notifications were issued for an extension of 467 square miles which area was meanwhile classed as Reserved lands. There was a large increase in the number of forest cases, the total being 137 against 28 in the previous year, but these were apparently due to misunderstandings on the part of the staff of the provisions of the new Forest Regulation which led to the reporting of cases where no violation of the law had actually occurred. The most important cases were of encroachment by cultivators and of breaches of transport rules.

Of the three working circles two only were worked, an excess of stock in hand led to closure of the third temporarily. The selection system appears to be followed, although improvement fellings were carried out over an extensive area. The people continued to enjoy forest privileges on a large scale, being allowed free grazing and the removal practically of everything required for domestic use, in addition, large indents were met from railways for sleepers and fuel.

Excellent progress was made in the extension of communications. The most important work was the extension of the forest tramway, 16½ miles of earthwork were completed, 69 bridgss constructed and 32 strengthened. The length of open line at the close of the year was 26½ miles. Including construction, purchase of rolling stock and other charges a sum of R3,41,184 was spent on the tramway during the year—27,560 cubic feet of timber in the log, 33,214 cubic feet of sleepers and 1,131 tons of fuel being transported by tram.

The year appears to have been favourable to natural reproduction and all species except *ebony* are reported to be thriving. Teak seeded profusely and germinated satisfactorily. No extension of plantations appears to have been made but thinnings were carried out in a part of the Palapilli Teak Plantation. Receipts and expenditure amounted to R7,79,348 and R8,24,478, respectively as against R8,86,032 and R8,15,757 in the previous year. The revenue therefore fell by R1,15,405; if however the expenditure on the tramway be not charged against the year the surplus would be R2,96,054.

The State of Cochin may be congratulated on the attention paid to forest administration generally and on the wisdom of providing up-to-date methods of exploiting its valuable forests.

53. In *Gwalior* the area of the forests cannot be ascertained until they have been surveyed and demarcated.

A tentative classification into Reserved, Protected and Unclassed has been introduced. The present condition of the forests is described as so mutilated that immediate measures are required to produce a healthy crop. Famine and drought caused a severe drain on the resources of the forests and most of the works of improvement were in consequence postponed.

The financial results show a revenue of R56,287 and an expenditure of R36,095 against R79,845 and R23,860 in the previous year. The less favourable results were due to the opening of the greater part of the State forests to the famine-stricken population and cattle, thereby depriving the Department of its share of grazing and grass dues.

54. *Baroda.*—The area of Reserved forests at the close of the year was 660 square miles or about the same as in the previous year. External demarcation is said to be practically accomplished and work was confined to internal demarcation of working units. Some progress was made in the compilation of Working-Plans while the prescriptions of existing plans were followed.

Moreover, about 100 square miles in the Tapti and Vakal Ranges were examined and surveyed with a view to bringing them also under systematic management. Protection of the forests against illicit felling, cattle and fire appears to have been moderately successful, although the area under fire protection is not stated and comparison with previous results is as a rule omitted.

Natural reproduction is reported to be far from satisfactory, except in localities immune from fire. Artificial reproduction to stock blanks in coupes received attention, reboisement works were also undertaken but the area so treated is not stated. Exploitation seems to be almost entirely by purchasers. In Unreserved forests the sale proceeds of six valuable species is credited to the Forest Department.

The financial results show a total realization of R1,57,361 and an expenditure of R68,890. The surplus was better than last year by about R34,000 and is the highest on record. The progress of forestry in Baroda appears to be very satisfactory, although the report does not convey much information.

55. *Alwar* shows an unchanged forest area of 367 square miles. Some progress was made in demarcation and in the erection of quarters for the staff.

Forest produce appears to be chiefly consumed by the various State departments. The principal operations consisted in collecting 1½ lakhs of maunds of fuel and five lakhs of maunds of grass. The year being one of scarcity an abnormal demand was thrown on the forests for fodder. All the State forests are protected from fire, and it is a matter for congratulation that in a season so unfavourable only four fires were reported, burning only 800 acres. The financial results of the Department as a whole are not stated.

56. The General Administration Report of the *Rewah* State does not contain much information, although Forest Conservancy has been in existence for some time.

The revenue from the State forests was R6,16,288, of which R5,01,688 were derived from lac. It is stated that the outturn was below the average but the receipts include the value of a part of the previous year's output.

The staff includes three trained Dehra Dun Rangers. Mr. R. M. Williamson, Deputy Conservator of Forests, Central Provinces, was deputed to examine the forests of the State and advise on their management and the Durbar hopes to derive much benefit from his report and advice.

APPENDIX I.

[*Vide* paragraphs 1 to 3.]

Area of reserved and leased forests.

Province.	Area, in square miles.				Remarks.
	At commencement of year.	Added in.	Excluded in.	At close of	
Bengal	4,260	...	...	4,260	
United Provinces . .	(*a*)4,056	36	...	(*a*)4,092	(*a*) Includes 157 square miles of leased forests.
Punjab . . .	(*b*)2,357	9	9	(*b*)2,357	(*b*) Includes 536 square miles of leased forests.
Burma	20,411	626	492	20,545	
Eastern Bengal and Assam	(*c*)5,982	40	13	6,009	(*c*) Includes 2,179 square miles of area transferred from Bengal.
Central Provinces including Berar.	(*d*)22,344	863	1,081	22,126	(*d*) Excludes 395 square miles in Sambalpur Division transferred to Bengal.
Coorg	410	95	...	505	
North-West Frontier .	234	...	...	234	
Ajmer	142	...	...	142	
Baluchistan . . .	234	30	...	264	
Andamans . . .	156	...	...	156	
Total Bengal . . .	60,586	1,699	1,595	60,690	
„ Madras . .	18,107	216	35	18,288	
„ Bombay . .	(*e*)13,486	71	39	(*e*)13,518	(*e*) Includes 217 square miles of leased forests.
Grand Total, 1905-06 .	(*f*)92,179	1,986	1,669	(*f*)92,496	(*f*) Includes 910 square miles of leased forests.
„ „ 1904-05 .	91,567	1,893	1,278	92,182	

APPENDIX II.

[*Vide* paragraphs 1 to 3.]

Area of all forest lands.

Province.		Forest area, in square miles.				Proportion of forests to whole area of Province.	Remarks.
Name.	Area in square miles.	Reserved.	Protected.	Unclassed State.	Total.		
Bengal . .	115,791	4,260	3,423	...	7,683	6·6	
United Provinces.	107,127	4,092	30	43	(*a*)4,165	3·9	(*a*) Includes 157 square miles of leased forests but excludes 9,071 square miles of district protected forests in the Naini Tal District.
Punjab . .	97,218	(*b*)2,357	5,168	1,851	(*b*)9,376	9·6	(*b*) Includes 536 square miles of leased forests.
Burma . .	162,508	20,545	...	(*c*)103,014	(*c*)123,559	76·0	(*c*) Includes 21 square miles of leased forests.
Eastern Bengal and Assam.	93,141	(*d*)6,009	5	23,125	29,139	31·3	(*d*) Includes— 502 acres under control of Eastern Bengal and Duars Railway. 315 acres under Bengal, Cooch Behar State Railway. 3,008 acres in charge of Collector of Noakhali. Total 3,825 acres or 6 square miles.
Central Provinces including Berar.	100,401	22,126	...	6	22,132	21·0	
Coorg . .	1,582	505	...	...	505	32·0	
North-West Frontier.	13,057	234	...	...	234	1·8	
Ajmer . .	2,646	142	...	6	148	5·6	
Baluchistan(*e*)	9,403	264	...	...	264	2·8	(*e*) British Baluchistan only.
Aadamans(*f*) .	3,143	156	...	1,795	1,951	62·1	(*f*) South Island only.
Total Bengal .	706,017	60,690	8,626	129,840	199,156	28·2	
„ Madras .	141,678	18,288	...	(*g*)1,297	19,585	13·9	(*g*) Reserved lands.
„ Bombay	122,922	(*h*)13,518	1,392	...	(*h*)14,910	11·8	(*h*) Includes 217 square miles of leased forests.
Grand Total, 1905-06.	970,617	(*i*)92,496	10,018	(*j*)131,137	(*k*)233,651	24·1	(*i*) Includes 910 square miles of leased forests.
Grand Total, 1904-05.	967,255	92,182	9,435	131,324	(*i*)232,941	24·1	(*j*) Includes 21 square miles of leased forests. (*k*) Includes 931 square miles of leased forests.

APPENDIX III.

[*Vide* paragraph 4.]

Progress in Forest Settlements.

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.						Area undergoing settlement.								
				Area.			Expenditure incurred.			At commencement of the year.			Taken in hand during the year.			Expenditure incurred during the year.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
	Sq. m	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	₹	₹	₹	Sq. m.	Sq. m.	Sq. m.	Sq.m	Sq.m.	Sq. m.	₹.	₹	₹
Bengal	4,260	...	4,260	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United Provinces	3,900	30	3,930	35	...	35	...	...	...	5	...	5	1	...	1	...	...	...
Punjab	1,936	4,908	6,844	...	...	...	...	...	...	16	205	221	...	...	...	...	...	...
Burma	20,349	...	20,349	195	...	195	835	...	835	1,641	...	1,641	378	...	378	23,415	...	23,415
Eastern Bengal and Assam	(a) 5,981	...	(a) 5,981	20	...	20	...	...	...	721	...	721	28	...	28	...	...	...
Central Provinces including Berar.	(b) 18,410	...	(b) 18,410	1	...	1	...	...	...	19	...	19	8	...	8	...	...	...
Coorg	410	...	410	95	...	95	1,456	...	1,456	...	...	...	...	...	...	...	...	...
North-West Frontier	234	...	234	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	234	...	234	30	...	30	...	...	...	...	...	...	...	...	...	...	...	...
Andamans	156	...	156	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Bengal	55,870	4,938	60,808	376	...	376	2,291	...	2,291	2,402	205	2,607	415	...	415	23,415	...	23,415
„ Madras	18,107	...	18,107	181	...	181	(c) 1,947	...	(c) 1,947	812	...	812	23	...	23	(d) 524	...	(d) 524
„ Bombay	13,182	826	14,008	10	140	150	...	...	(e) 1,570	27	...	27	16	...	16	(f) 5,32	...	(f) 5,332
Grand Total, 1905-06	87,159	5,764	92,923	567	140	707	4,238	...	(g) 5,808	3,241	205	3,446	454	...	454	29,771	...	29,771
„ „ 1904-05	86,406	5,606	92,012	1,192	...	1,192	19,233	...	19,233	042	205	3,247	1,052	...	1,052	15,256	...	15,256

(*a*) Includes 2,184 square miles transferred from the Province of Bengal.
(*b*) Excludes 395 square miles in Sambalpur Division transferred to Bengal.
(*c*) Excludes ₹12,681 debited to other than Forest Accounts.
(*d*) Excludes ₹6,130 debited to other than Forest Accounts.
(*e*) Includes expenditure on areas undergoing settlement.
(*f*) Excludes ₹8,979 debited to other than Forest Accounts. See also (*e*) above.
(*g*) Includes expenditure referred to in (*e*) above.

APPENDIX IV.

[*Vide* paragraph 5.]

Demarcation and Maintenance of Boundaries.

Province.	Circle.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
									On new work.	On repairs.
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	₹	₹
Bengal	.....	223	3,320	79	3,622	...	1,005	4,627	1,488	3,169
United Provinces	Eastern Circle	...	524	1,984	2,508	11	610	3,129	48	1,620
	Western „	2	542	1,597	2,141	2	784	2,927	126	3,310
	Total	2	(a) 1,066	3,581	4,649	13	1,394	6,056	174	4,930
Punjab	.....	245	2,525	8,076	10,846	3,575	1,191	15,612	641	4,702
Burma	Pegu Circle	163	814	2,237	3,214	114	1,163	4,491	1,389	4,501
	Tenasserim Circle	...	1,018	2,310	3,328	19	607	3,954	...	7,573
	Northern „	259	1,023	2,309	3,591	22	503	4,116	3,375	1,857
	Southern „	169	803	2,699	3,671	394	431	4,496	2,404	3,158
	Total	591	3,658	9,555	13,804	549	2,704	17,057	7,168	17,089
Eastern Bengal and Assam.	.....	52	1,628	260	1,940	18	2,560	4,518	3,320	7,401
Central Provinces	Northern Circle	18	9,773	3,407	13,198	...	1,291	14,489	1,156	5,811
	Southern „	...	6,363	1,193	7,556	59	867	8,482	...	2,671
	Berar „	207	6,613	5,360	12,180	332	636	13,148	2,702	3,577
	Total	225	22,749	9,960	32,934	391	2,794	36,119	3,858	12,059
Coorg	.....	...	...	307	307	173	56	536	110	107
North-West Frontier	.....	...	323	452	775	...	163	938	...	4,604
Ajmer	.....	...	1	243	244	...	158	402	194	5
Baluchistan	.....	63	212	126	401	...	77	478	...	...
Andamans	.....	...	...	42	42	29	116	187	...	...
Total Bengal	.....	1,401	35,482	32,681	69,564	4,748	12,218	86,530	16,953	54,066
„ Madras	Northern Circle	209	2,904	6,735	9,848	108	553	10,509	4,850	6,506
	Central „	232	8,396	6,190	14,818	216	239	15,273	3,201	3,494
	Southern „	167	1,022	8,522	9,711	641	959	11,311	2,800	11,631
	Total	608	12,322	21,447	34,377	965	1,751	37,093	10,851	21,631
„ Bombay	Northern Circle	132	1,210	3,122	4,464	73	397	4,934	1,170	1,230
	Central „	227	3,736	13,997	17,960	4,681	861	23,502	1,892	1,718
	Southern „	911	833	5,239	6,983	7,429	653	15,065	13,616	1,322
	Sindh „	40	1,734	219	1,993	...	576	2,570	...	...
	Total	1,310	7,513	22,577	31,400	12,183	2,487	46,070	16,678	4,270
Grand Total, 1905-06	.....	3,319	55,317	76,705	135,341	17,896	16,456	169,693	44,482	79,967
„ „ 1904-05	.....	4,867	51,647	73,722	130,236	21,842	16,142	168,220	57,065	71,037

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private and other lands within the forests, but not the limits of sub-divisions such as blocks, compartments and coupes.

(a) Includes 56 miles of Nepal boundary and 51 miles of railway boundary.

APPENDIX V.

[*Vide* paragraphs 6 to 10.]

Forest areas surveyed and under survey.

Provinces.	4″=1 mile.		8″=1 mile.		Total of detail survey on 4″ scale and over.		Expenditure in surveys including mapping and publishing charges.
	Outturn.	Cost rate.	Outturn.	Cost rate.	1905-06.	Total up to date.	
1	2	3	4	5	6	7	8
	sq. miles.	₹	sq. miles.	₹	sq. miles.	sq. miles.	₹
Bengal	...	...	..	...	...	2,223	4,720
United Provinces	98	32·0	...	...	98	4,075	6,043
Punjab	53	37·8	...	...	53	3,568	6,218
North-West Frontier Province	25	84·8	...	...	25	366	3,516
Burma	1,252	126·1	...	...	1,252	12,478	2,20,379
Central Provinces including Berar	0·5	...	...	...	0·5	18,597·5	3,424
Eastern Bengal and Assam	(a) 590	30·5 for 2″ 129·8 for 4′	...	...	590	(a) 1,556	28,237
Ajmer	...	..	...	...	...	144	...
Total of Bengal	2,018·5	...	...	...	2,018·5	43,007·5	2,72,537
Madras	832	104·0	...	...	832	13,900	1,02,734
Bombay	631	87·4	126	173·2	757	11,726	84,944
Total of Madras and Bombay	1,463	...	126	173·2	1,589	25,626	1,87,678
Grand Total 1905-06	3,481·5	...	126	...	3,607·5	(b) 68,633·5	(c) 4,60,215
„ „ 1904-05	3,171	...	187	...	3,358	64,926	(d) 4,78,677

(a) Includes 571 sq. miles on 2″ scale in Darrang.

(b) Area revised, *vide* Appendix V of Review on Forest Administration in British In for 1904-05.

(c) Excludes Head-quarters charges R41,876.

(d) Includes R10,479 for cost of instruments.

APPENDIX VI.

[*Vide* paragraphs 6 to 10.]

Details of Forest Survey Operations.

Province.	Forest Surveyed.	Nature of Survey Operations. 4" Detail Survey. Area.	4" Detail Survey. Cost rate.	Triangulation. Area.	Triangulation. Cost rate.	Traversing. Area.	Traversing. Cost rate.	Expenditure including mapping and publishing charges. Forest.	Survey of India.	Total.	Remarks.
		sq. m.	₹	sq. m.	₹	l. m.	₹	₹	₹	₹	
Bengal	Koderma	...	...	...	...	...	...	473	137	610	Mapping and publishing charges.
	Singhbhum	...	...	...	...	...	...	289	120	409	
	Darjeeling	...	...	...	...	...	...	370	153	523	
	Angul	...	...	...	...	...	...	2,221	913	3,134	
	Kalimpong	...	...	..	...	...	...	31	13	44	
	Total	...	...	...	...	...	...	3,384	1,336	4,720	
United Provinces — Western Circle	Tehri-Garhwal	81	35·1	101	9·3	...	...	3,939	...	3,939	For Second Edition of Kumaun and Garhwal maps.
	Ganges	...	...	..	...	...	...	905	...	905	
	Naini Tal	...	...	...	...	...	...	16	...	16	
	Garhwal	...	...	...	...	...	.	114	..	114	
United Provinces — Eastern Circle	Pilibhit	17	17·6	...	...	64	9·5	804	265	1,069	
	Total	98	32·0	101	9·3	64	9·5	5,778	265	6,043	
Punjab	Rawalpindi	4±	37·8	...	...	...	...	1,410	581	1,991	Includes mapping and publishing charges.
	Lahore			...	...	...	...	245	101	346	
	Shahpur	(*a*)474	4·9	...	...	...	...	2,420	...	2,420	(*a*) Special boundary Survey.
	Bashahr	(*a*)365	3·6	..	...	...	..	1,369	...	1,369	
	Jhelum	...	...	...	...	...	...	66	26	92	Drawing charges.
	Total	53 (*a*)839	37·8 4·3	...	...	...	...	5,510	708	6,218	
North-West Frontier Province.	Hazara	25	84·8	...	...	...	...	2,490	1,026	3,516	Includes mapping and publishing charges.
Burma — Southern Circle	Mandalay	...	...	...	...	...	...	849	350	1,199	Mapping and publishing charges.
	Ruby Mines	...	...	...	...	...	...	520	216	736	
	Yaw	68·22	...	...	...	...	...	9,683	54,996	64,679	
	Pakokku	..	...	1,622	...	857·21	...				
Burma — Northern Circle	Katha	318·0	...	...	...	115·0	...	27,292	11,246	38,538	
	Mu	252·0	...	...	...	95·0	..	19,450	8,015	27,465	
	Bhamo	...	..	...	...	...	...	132	55	187	Mapping and publishing charges.
	Myittha	...	...	...	...	...	...	35,374	14,573	49,947	(*b*) For 2" boundary survey.
	Upper Chindwin	...	...	...	...	...	...				
	Lower ,,	392·65 (*b*)40·0	...	...	...	...	...				
	Shwebo	...	...	...	...	...	...	...	...	...	
Burma — Pegu Circle	Thayetmyo	14·43	...	..	...	...	...	1,566	648	2,214	
Burma — Tenasserim Circle	Thaungyin	206·91	...	...	...	24·1	...	25,081	10,333	35,414	Includes mapping and publishing charges.
	Ataran	...	...	...	...	...	...				
	Total	1,252·21 (*b*)40·0	126·1	1,622	9·1	1,091·31	40·1	1,19,947	1,00,432	2,20,379	
Central Provinces — Northern Circle	Mandla	...	...	...	...	...	...	1,993	818	2,811	Mapping and publishing charges.
	Hoshangabad	...	...	...	...	...	...	39	16	55	
Central Provinces — Southern Circle	South Chanda	...	...	...	...	..	...	113	46	159	
Central Provinces — Berar Circle	Nimar	...	...	...	...	...	...	93	16	55	
	Betul	0·5	...	...	...	...	...	245	99	344	
	Total	0·5	...	...	...	...	...	2,429	995	3,424	
Eastern Bengal and Assam.	Garo Hills	15	129·8	...	...	...	...	1,785	735	2,520	Includes mapping and publishing charges. *On 2" scale.
	Kamrup	...		...	...	...		204	84	288	
	Nowgong	4		...	...	...	...	992	408	1,400	
	Darrang	*571	30·5	346	1·9	230	16·8	634	22,118	22,752	
	Sibsagar	...	...	...	...	...	..	54	22	76	
	Chittagong	...	...	...	...	37	31·0	851	350	1,201	
	Total	571* 19	30·5 129·8	346	1·9	267	18·7	4,520	23,717	28 237	

APPENDIX VI—*continued.*

Details of Forest Survey Operations—*continued.*

Province.	Forest Surveyed.	Nature of Survey Operations. 4" Detail Survey. Area.	4" Detail Survey. Cost rate.	Triangulation. Area.	Triangulation. Cost rate.	Traversing. Area.	Traversing. Cost rate.	Expenditure including mapping and publishing charges. Forests.	Survey of India.	Total.	Remarks.
		sq. m.	₹	sq. m.	₹	l. m.	₹	₹	₹	₹	
Madras — Northern Circle.	Ganjam	288·57		70	33·0	...	...	40,895	16,853	57,748	
Northern Circle.	Godavari	297·18		...	...	...	...				
Southern Circle.	South Canara	46·67	104·0	...	...	149	28·0	25,378	16,985	42,363	
Southern Circle.	North Malabar	147·60		2,15	6·0	25	...				
Central Circle.	Chingleput	51·76		...	...	...	...	1,936	687	2,623	
	Total	831·78	104·0	70 2,150	33·0 (a)6·0	174	28·0	68,209	34,525	1,02,734	(a) For 2" topo.
Bombay — Northern Circle.	Thana	*126·0	173·2	...	...	...	...	15,885	6,546	22,431	*On 8" scale.
Central Circle.	Satara	630·85	87·4	...	...	...	...	44,271	18,242	62,513	
Central Circle.	Khandesh	...	...	680	13·2	...	...				
	Total	*126·0 630·85	173·2 87·4	680	13·2	...	...	60,156	24,788	84,944	
	Forest Survey Head-quarters.	...	...	...	...	..	.	29,655	12,221	41,876	
	Grand Total, 1905-06.	†4,486·34	...	4,969	...	1,596·31	...	3,02,078	2,00,013	5,02,091	†4" . 2,910·34 sq. m. 2" . 571 „ 8" . 126 „ Boundary Survey on 4". 879 l. m. Total 4,486·34
	Grand Total, 1904-05.	3,508	...	5,074	..	2,471	...	3,37,187	1,41,490	5,21,645	

APPENDIX VII.

[*Vide* paragraphs 11 and 12.]

Areas brought under the control of sanctioned Working-Plans up to 30th June 1906 in the provinces outside the Madras and Bombay Presidencies.

Province.	Forest area, in square miles.				Area for which Working-Plans prepared and sanctioned up to 30th June.	Proportion of Forest area under sanctioned Working-Plans.
	Reserved.	Protected.	Unclassed State.	Total.		
1	2	3	4	5	6	7
					Sq. miles.	Per. cent.
Bengal	4,260	3,423	...	7,683	5,122	67
United Provinces	4,092	30	43	4,165	3,318	80
Punjab	2,358	5,168	1,851	9,377	4,145	44
Burma	20,544	...	103,014	123,558	4,074	3
Eastern Bengal and Assam . .	6,009	5	23,125	29,139	1,101	4
Central Provinces including Berar .	22,126	...	6	22,132	9,965	45
Coorg	505	...	...	505	178	35
North-West Frontier . . .	234	...	...	234	123	53
Ajmer	142	...	6	148	140	95
Baluchistan	264	...	...	264	...	...
Andamans	156	...	1,795	1,951	...	...
Grand Total in 1905-06 .	60,690	8,626	129,840	199,156	28,166	14
„ „ „ 1904-05 .	60,588	8,405	129,805	198,798	27,318	14

APPENDIX VIII.

[*Vide* paragraphs 11 and 12.]

Progress in Working-Plans in the provinces outside the Madras and Bombay Presidencies during the year.

Province.	Preliminary proposals submitted to the Inspector-General of Forests for Working-Plans.		Completed plans submitted for opinion and remarks of Inspector-General of Forests.		Plans finally sanctioned by Local Governments on recommendation of the Inspector-General of Forests.	
	No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.
1	2	3	4	5	6	7
	No.	Sq. miles.	No.	Sq. miles.	No.	Sq. miles.
Bengal	2	2,670	3	2,810	...	...
United Provinces . Eastern Circle	5	876	...	...	...	...
United Provinces . Western „	1	5	1	2	1	2
Punjab	...	...	1	232	1	232
Burma . Pegu Circle	...	...	1	21	3	438
Burma . Tenasserim Circle	...	...	...	...	...	...
Burma . Northern Circle	1	190	...	...	.	...
Burma . Southern „	...	...	1	248	1	248
Eastern Bengal and Assam	...	...	...	...	2	391
Central Provinces . Northern Circle	...	...	...	...	1	98
Central Provinces . Southern „	...	...	...	...	...	...
Central Provinces . Berar „	...	...	...	...	...	...
Coorg	...	...	...	...	...	...
North-West Frontier	...	...	1	47	1	47
Ajmer	...	...	...	...	...	...
Baluchistan	...	..	...	...	...	...
Andamans	...	...	...	...	...	...
Total	9	3,741	8	3,360	10	1,456

N.B.—The figures in this Appendix have been obtained from the Conservators.

APPENDIX IX.

[*Vide* paragraphs 11 and 12.]

Comparative statement of progress made in Working-Plans.

Province.	Areas for which Working-Plans have been completed and sanctioned.		Areas for which Working-Plans are being compiled.		Area for which Working-Plans have still to be taken in hand.	Total forest area as in Form No. 51.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
1	2	3	4	5	6	7	8
	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	sq. m.	
Bengal	(a) 5,122	...	251	...	2,310	7,683	(a) The decrease by 112 square miles as compared with the figures of 1904-05 is due to the transfer of the Jalpaiguri Division (182 square miles) from Bengal to Eastern Bengal and Assam and of the Sambalpur Division (70 square miles) from the Central Provinces to Bengal.
United Provinces — Eastern Circle	(b) 1,460	...	...	355	341	2,156	(b) The decrease by 506 square miles as compared with the figures given in previous year's review is accounted for thus :—
United Provinces — Western „	1,858	...	78	...	73	2,009	(i) Transfer of 334 and 21 square miles of the Bahraich and Gonda Divisions from column 2 to column 4 as the working-plans for these areas are under revision.
Punjab	(c)4,077	68	367	...	4,865	9,377	(ii) Transfer of 74 square miles in Jaunsar Division from column 2 to column 4 of this Appendix as the Working-Plan has expired, and is now under revision.
Burma — Pegu Circle	1,102	438	133	...	23,933	25,606	(iii) Transfer of 78 square miles in Jaunsar Division from column 2 of Appendix IX of Review for 1904-05 to column 4 of this Appendix, as the Working-Plan has not yet been completed.
Burma — Tenasserim Circle	1,187	...	860	...	29,620	31,667	(iv) Increase by 1 square mile of the area of the Kheri Division.
Burma — Northern „	36	...	288	298	27,282	27,904	(c) The increase by 241 square miles as compared with the figures of 1904-05 is due principally to additions to the area of forests in Kulu Division.
Burma — Southern „	1,063	248	(c)773	215	36,082	38,381	(d) The increase by 113 square miles as compared with the figures of the previous year is due to the following causes :—
Eastern Bengal and Assam	(d)710	391	1	3	28,034	29,139	Transfer from Bengal of the Jalpaiguri Division—178 square miles.
Central Provinces — Northern Circle	4,977	98	927	...	2,845	8,847	Correction of the area of Garo Hills Division which caused a reduction of 1 square mile.
Central Provinces — Southern „	(e) 3,282	...	642	158	2,798	6,880	Non-completion of the Working-Plan for 64 square miles of forests in Sibsagar Division.
Central Provinces — Berar „	1,608	...	...	...	4,797	6,405	(e) The decrease as compared with the figures of the previous year is accounted for as follows :—
Coorg	178	...	...	...	327	505	Decrease by 78* square miles due to the transfer to Bengal of the Sambalpur Division.
North-West Frontier	76	47	111	...	...	234	Decrease by 76 square miles in Balaghat Division ; by 9 square miles in North Chanda ; by 14 square miles in Raipur : due to abandonment of Working-Plans.
Ajmer	140	...	...	...	8	148	Decrease by 2 square miles in Seoni due to correction of area.
Baluchistan	...	...	...	...	264	264	Increase by 1 square mile in Chhindwara due to correction of area.
Andamans	...	...	...	...	1,951	1,951	(f) Excludes 20 square miles : this discrepancy is not explained in the Report.
Total Bengal	26,876	1,290	4,431	1,029	165,530	199,156	
Madras — Northern Circle	1,810	...	1,202	54	3,761	6,827	
Madras — Central „	2,181	110	1,356	378	3,225	7,250	
Madras — Southern „	2,139	...	...	632	2,737	5,508	
Total	6,130	110	2,558	1,064	9,723	19,585	
Bombay — Northern Circle	1,369	...	63	...	677	2,109	
Bombay — Central „	1,542	735	532	25	2,342	5,176	
Bombay — Southern „	1,023	236	252	50	3,389	4,950	
Bombay — Sindh „	611	...	421	...	39	1,091	
Total	4,545	971	1,268	75	(f)6,447	13,326	

*In Form 55 of the Bengal Report for 1905-06, this area is shown as 70 square miles.

APPENDIX X.

[*Vide* paragraphs 13 to 15.]

Expenditure on Communications and Buildings.

Province.	New Work.		Repairs.		Other works.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
	₹	₹	₹	₹	₹	₹
Bengal	13,559	28,415	9,461	11,654	6,060	69,149
United Provinces	85,312	11,948	22,641	41,617	10,098	1,71,616
Punjab	16,873	14,726	11,693	5,108	971	49,371
Burma	61,148	21,324	33,755	9,700	6,606	1,32,533
Eastern Bengal and Assam . .	16,754	9,277	13,925	11,002	2,881	53,839
Central Provinces including Berar .	33,828	17,867	20,370	13,497	14,781	1,00,343
Coorg	3,278	787	519	1,398	141	6,123
North-West Frontier . . .	807	2,060	1,432	808	49	5,156
Ajmer	312	99	42	18	153	624
Baluchistan	16	...	...	33	...	49
Andamans	808	1,439	562	7,545	...	10,354
Total Bengal .	2,32,695	1,07,942	1,14,400	1,02,380	41,740	5,99,157
Total Madras .	58,296	18,599	30,238	29,258	8,407	1,44,798
Total Bombay .	65,545	24,804	8,341	9,433	14,688	1,22,811
Grand Total, 1905-06 .	3,56,536	1,51,345	1,52,979	1,41,071	64,835	8,66,766
Grand Total, 1904-05 .	2,89,760	1,67,245	1,25,557	1,19,129	64,959	7,66,650

APPENDIX XI.

[*Vide* paragraphs 16 and 17.]

Breaches of Forest Rules.

Province.	Number of cases decided by the Courts.	Number of cases compounded.	Total.	Proportion of convictions to total number of cases decided by the Courts.
Bengal	259	2,466	2,725	91·5
United Provinces	103	838	941	88·3
Punjab	828	4,012	4,840	81·6
Burma	1,190	2,180	3,370	85·5
Eastern Bengal and Assam	197	485	682	83·8
Central Provinces including Berar	348	5,227	5,575	84·4
Coorg	8	39	47	50·0
North-West Frontier	44	618	662	88·6
Ajmer	26	537	563	100·0
Baluchistan	91	150	241	68·1
Andamans	1	1	1	...
Total Bengal	3,095	16,553	19,647	82·2
Total Madras	6,126	13,288	19,414	89·2
Total Bombay	1,939	16,723	18,662	86·7
*Grand Total 1905-06	11,160	46,564	57,723	88·3
*Grand Total 1904-05	10,209	43,842	54,051	89·0
*Grand Total 1903-04	10,928	40,709	51,637	88·4
*Grand Total 1902-03	11,022	36,890	47,912	86·9

*Includes cases which were pending at the close of the previous year.

APPENDIX XII.

[*Vide* paragraphs 16 and 17.]

Breaches of Forest Rules.

Province.	Cases taken into Court.				Compounded cases.				Cases in which the offenders remained undetected.				Total of each class of offence.				
	Injury to fire-protected forests by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offence.	Grand total of cases.
Bengal	38	134	20	92	4	1,791	729	87	89	14	...	...	131	1,939	749	179	2,998
United Provinces . . .	13	35	37	17	19	543	127	52	62	48	1	...	94	626	265	69	1,054
Punjab	30	498	216	78	14	2,193	1,773	32	126	27	3	4	170	2,718	1,992	114	4,994
Burma	31	936	49	188	35	1,419	54	897	48	14	...	1	114	2,419	103	1,086	3,722
Eastern Bengal and Assam .	1	136	9	42	1	266	92	132	10	...	...	1	12	402	101	175	690
Central Provinces including Berar.	60	171	70	69	115	2,830	1,976	191	340	118	...	...	515	3,119	2,046	260	5,940
Coorg	1	...	...	3	...	1	14	14	...	...	...	...	1	1	14	17	33
North-West Frontier . .		29	9	1	2	331	276	9	18	18	4	...	25	378	289	10	702
Ajmer	...	26	...	...	...	439	97	1	3	...	...	...	3	465	97	1	566
Baluchistan	...	53	17	7	...	4	146	...	...	1	...	...	...	58	163	7	228
Andamans	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Total Bengal . . .	179	2,069	427	497	190	9,817	5,384	1,415	693	240	8	6	1,065	12,126	5,859	1,918	20,928
„ Madras . . .	73	4,083	1,880	472	21	8,915	5,474	676	562	456	358	51	656	13,454	7,712	1,199	23,021
„ Bombay . . .	169	712	954	220	226	5,338	9,853	1,314	2,204	2,281	306	120	2,599	8,331	11,113	1,654	23,697
Grand total 1905-06 .	421	6,864	3,261	1,189	437	24,070	20,711	3,405	3,462	2,977	672	177	4,320	33,911	24,644	4,771	67,646
„ „ 1904-05 .	313	6,431	2,933	1,104	348	23,251	18,950	3,098	3,337	3,186	427	157	3,998	32,868	22,310	4,359	63,535
„ „ 1903-04 .	426	5,816	3,089	1,116	471	21,375	17,227	2,759	4,080	2,735	414	131	4,977	†30,276	21,230	4,006	60,489
„ „ 1902-03 .	456	5,772	3,518	1,186	343	20,924	14,993	2,282	3,378	2,574	428	140	4,127	29,270	18,339	2,608	55,944

* Includes only the new cases of the year ; not those which were left pending at the close of the previous year.
† See Review for 1904-05.

APPENDIX XIII.

[*Vide* paragraphs 18 to 20.]

Causes of Forest Fires.

Province.	I.—Fire due to preventible causes.				II.—Other Fires.				Total.	
	Fires originating in departmental fire conservancy operations.		External fire crossing the fire traces.		Fires due to carelessness of outsiders.		Fire originating from intention or malice.			
	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.
Bengal	6	2	15	27	24	24	4	14	49	67
United Provinces — Eastern Circle	7	8	10	7	35	72	3	1	55	88
United Provinces — Western „	10	8	5	31	23	13	5	4	43	56
Total United Provinces	17	16	15	38	58	85	8	5	98	144
Punjab	4	1	21	2	114	23	43	17	182	43
Burma — Pegu Circle	35	82	26	26	50	28	24	136	135	272
Burma — Tenasserim „	6	3	29	85	(*a*) 30	70	23	21	88	179
Burma — Northern „	14	2	13	180	9	26	5	2	41	210
Burma — Southern „	6	10	11	3	48	125	20	33	85	174
Total Burma	61	97	79	294	137	249	72	192	349	832
Eastern Bengal and Assam	1	...	5	2	7	3	3	...	16	(*b*) 5
Central Provinces — Northern Circle	32	9	35	52	52	36	(*c*) 45	(*c*) 93	164	190
Central Provinces — Southern „	14	2	25	43	49	129	(*d*) 48	(*d*) 83	136	257
Central Provinces — Berar „	18	54	20	28	36	31	(*e*) 38	(*e*) 37	112	150
Total Central Provinces	64	65	80	123	137	196	131	213	412	597
Coorg	1	·1	2	·5	1	·1	4	·6	8	1·3
North-West Frontier	...	...	...	...	19	...	5	...	24	.
Ajmer	...	...	...	..	3	2	...	...	3	
Grand Total, Bengal	154	181	217	486½	500	582	270	441½	1141	1,691
Madras — Northern Circle	54	23	44	47	316	275	58	76	472	421
Madras — Central „	4	2	33	16	155	95	189	73	381	186
Madras — Southern „	15	5	35	9	174	79	87	55	311	148
Total Madras	73	30	112	72	645	449	334	204	1164	755
Bombay — Northern Circle	40	2	64	11	636	161	...	...	740	174
Bombay — Central „	25	2	13	50	231	22	(*f*) 406	(*f*) 536	675	610
Bombay — Southern „	4	2	44	4	201	56	877	205	1126	267
Bombay — Sindh „	1	·05	8	·16	37	1·6	...	...	46	1·81
Total Bombay	70	6	129	65	1105	240	1283	741	2587	1,052
Grand Total — 1905-06	297	217	458	623½	2250	1,271	1887	1,386½	4892	3,498
Grand Total — 1904-05	216	148½	424	454½	3120	1,649⅓	488	232½	4248	2,485

(*a*) Of this number 9 fires burning 14 square miles were due to carelessness or accident of workmen.
(*b*) Excludes partially protected areas which were included in the figures for 1904-05.
(*c*) Includes 32 fires burning 55 square miles the causes of which are unknown.
(*d*) „ 33 „ 73 „ ditto.
(*e*) „ 33 „ 31 „ ditto.
(*f*) „ 383 „ 518 „ ditto.

APPENDIX XIV.

[*Vide* paragraph 21.]

Protection from Cattle.

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			All classes of Forests.		
	Total areas.*	Area closed to all animals.†	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.
Bengal	4,260	3,606	86	3,423	1,752	393	...	...	...	7,683	5,358	479
United Provinces	4,092	2,082	527	30	...	30	43	1	30	4,165	2,083	587
Punjab	2,357	571	538	5,168	53	74	1,851	12	141	9,376	636	753
Burma	20,545	16,658	62	...	...	...	103,014	...	...	123,559	16,658	62
Eastern Bengal and Assam	6,009	4,546	1,093	5	...	...	23,125	...	...	29,139	4,546	1,093
Central Provinces including Berar.	22,126	4,847	7,792	...	...	...	6	...	...	22,132	4,847	7,792
Coorg	505	162	...	...	...	...	...	..	...	505	162	...
North-West Frontier	234	72	94	...	...	...	...	...	...	234	72	94
Ajmer	142	10	142	...	...	...	6	...	...	148	10	142
Baluchistan	264	168	...	..	...	...	...	.	...	264	168	...
Andamans	156	156	...	...	...	...	1,795	...	...	1,951	156	...
Total Bengal	60,690	32,878	10,334	8,626	1,805	497	129,840	13	171	199,156	34,696	11,002
„ Madras	18,288	1,503	315	...	..	...	1,297	...	...	19,585	1,503	315
„ Bombay	13,518	2,549	4 897	1,392	...	25	..	...	...	14,910	2,549	4,922
Grand Total 1905-06	92,496	36,930	15,546	10,018	1 805	522	131,187	18	171	233,651	38,748	16,239
Grand Total 1904-05	92,182	35,978	18,631	9,435	1,803	554	131,324	22	171	232,941	37,803	19,356

* Total areas as shown in Appendix II.
† For the whole year. Areas closed for a part of the year omitted.

APPENDIX XV.

[*Vide* paragraph 21.]

Protection from Cattle.

Province.	Circle.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.										GRAZED FREE, NUMBER OF ANIMALS.									
		At full rates.					At privileged rates.					By right under Settlement.					During pleasure of Government or otherwise than under Settlement.				
		Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
Bengal	...	5,862	82,455	5,153	...	18	10,015	155,086	12,514	...	515	21,000	63,000	21,000	...	...	20	230	137	...	1
United Provinces.	Eastern	32,880	124,211	9,595	...	946	20,700	129,071	41,043	...	687	14,311	59,140	1,759	...	584	15,350	63,003	872	60	97
	Western	32,187	68,783	25,540	3,738	6,712	2,549	17,357	34,607	...	1,519	8,774	70,400	42,458	...	33	299	5,860	580	...	15
Total	...	65,067	192,034	35,135	3,738	7,658	32,249	146,428	95,650	...	2,206	23,085	129,540	44,217	...	617	15,649	68,863	1,452	60	112
Punjab	...	21,373	53,270	377,282	4,797	1,951	416	4,671	231,603	178	286	145,272	646,200	657,687	282	12,878	13	269	27	4,359	95
Burma	Pegu	1,138	974	...	...	...	...	...	...	...	...	17,686	33,861	49	...	1	...	...	...	...	...
	Tenasserim	72	65	...	...	...	...	...	...	...	...	22,518	570	48	...	14	...	...	...	...	...
	Northern	7	...	...	...	...	...	...	...	...	...	14,083	276	...	...	...	1,527	...	...	...	321
	Southern	39	529	...	...	74	...	...	...	...	...	656	85,876	...	...	...	1,712	668	...	...	677
Total	...	1,256	1,568	...	...	74	...	...	...	...	...	54,943	120,583	97	...	15	3,239	668	...	...	998
Eastern Bengal and Assam.	...	36,123	7,357	40	...	693	...	56,112	...	...	...	...	60	...	...	...	67,936	378,598	72,377	...	543
Central Provinces.	Northern	20,528	176,018	70,149	29	294	54,685	436,008	90,625	...	630	...	...	...	...	...	234	1,940	4	...	...
	Southern	204,285	998,735	65,600	2	3,304	31,188	140,673	19,086	...	813	...	...	...	...	...	5,052	21,274	565	...	...
	Berar	208,920	963,535	608,732	165	5,424	17,791	165,015	7,876	...	401	16	103,355	...	...	...	...	17,313	685	...	51
Total	...	433,733	2,138,288	744,481	196	9,022	103,664	741,696	117,587	...	1,844	16	103,355	...	...	...	5,286	40,527	1,254	...	51
Coorg	...	539	2,627	...	...	...	859	...	...	...	...	...	1,676	...	...	...	...	30	...	...	...
North-West Frontier.	...	1,730	2,168	26	...	25	...	...	...	...	...	370	740	...	...	...	1,245	6,611	...	...	...
Ajmer	...	572	3,721	...	...	...	2,231	10,811	...	...	...	...	...	...	...	...	3,639	16,439	...	...	...
Baluchistan	...	189	4,414	2,079	...	56	...	...	...	...	...	...	751	16,652	1	224	...	300	992	...	...
Total Bengal.	1905-06	566,384	2,437,502	1,164,196	8,731	19,497	149,434	1,114,804	457,354	178	4,851	244,686	1,065,905	739,653	283	13,734	97,027	512,535	76,239	4,419	1,800
	1904-05	555,605	2,579,431	1,108,128	21,878	32,283	110,385	906,904	502,823	96	3,889	242,387	1,015,996	656,997	299	10,959	78,974	427,424	74,508	723	1,821
Madras	Northern	80,235	484,852	682,914	...	...	9,362	74,392	8,240	...	...	...	2,685	5,505	...	...	26	1,863	...	...	...
	Central	32,826	759,497	790,519	...	...	...	721	1,200	...	...	...	1,900	...	...	...	679	2,947	35	...	...
	Southern	30,620	344,855	164,374	...	996	74	2,299	117	...	...	...	...	...	...	...	...	...	...	...	...
Total	1905-06	143,681	1,589,204	1,637,807	...	996	9,436	77,412	9,557	...	...	...	4,585	5,505	...	...	705	4,810	35	...	...
	1904-05	143,272	1,597,601	1,472,732	...	385	7,495	53,199	10,895	...	...	2,251	4,585	5,505	...	...	925	8,115	45	...	...
Bombay	Northern	553	2,474	...	...	13	3,611	12,436	...	...	...	...	...	...	...	...	48,243	291,406	...	...	2,306
	Central	2,873	24,768	136,074	...	1,205	7,223	349,953	132,885	...	4,063	...	...	...	...	...	2,363	28,663	...	...	100
	Southern	*6,519	...	2,105	...	...	*490,645	...	6,466	1	11	...	...	...	...	...	...	...	...	...	...
	Sindh	11,367	10,384	70,815	1,690	380	542	1,195	1,855	77	74	2,942	10,252	91	2	112	721	1,874	2,692	1,131	2,653
Total	1905-06	21,312	37,626	208,994	1,690	1,598	502,021	363,584	141,205	78	4,148	2,942	10,252	91	2	112	51,330	321,943	2,692	1,131	5,059
	1904-05	24,368	35,857	211,658	1,858	1,335	554,975	321,651	80,827	309	941	2,935	10,529	91	9	113	48,976	297,674	3,610	1,529	12,595
Grand Total.	1905-06	731,377	4,064,332	3,010,997	10,421	22,091	660,991	1,555,800	608,116	256	8,999	247,628	1,080,742	745,249	285	13,846	149,962	839,288	78,966	5,550	6,859
	1904-05	723,245	4,212,892	2,792,518	23,736	34,003	673,355	1,281,754	594,545	405	4,830	247,573	1,031,110	662,593	308	11,072	128,875	733,213	78,163	2,262	14,416

* Includes cows and bullocks.

APPENDIX XVI.

(*Vide* paragraphs 25 to 27.)

Area of Plantations and the cost of the year's work.

Province.	AREA IN ACRES.												Cost of operations during the year.
	At commencement of the year.			Added during the year.			Excluded during the year.			Balance at close of the year.			
	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	
													R
Bengal	960	...	960	255	...	255	2	...	2	1,213	...	1,213	1,726
United Provinces	3,427	...	3,427	173	...	172	80	...	80	3,519	..	3,519	25
Punjab	977	...	977	...	...	...	470	...	470	507	...	507	26
Burma	6,166	68,438	74,604	213	2,255	2,468	550	138	688	5,829	70,555	76,384	1,40,820
Eastern Bengal and Assam	3,849	7	3,856	51	...	51	25	...	25	3,875	7	3,882	7,132
Central Provinces including Berar.	352	...	352	597	...	597	446	...	446	503	...	503	312
Coorg	2,062	957	3,019	...	110	110	...	...	...	2,062	1,067	3,129	3,396
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	94	...	94	2	...	2	..	...	...	96	...	96	1,018
Baluchistan	33	...	33	3	...	3	...	...	...	36	...	36	201
Andamans	116	177	293	...	200	200	...	...	...	116	377	493	3,150*
Total Bengal	18,036	69,579	87,615	1,293	2,565	3,858	1,578	138	1,711	17,756	72,006	89,762	1,59,606
Madras	24,957†	746	25,703	969	25	994	609	...	609	25,317†	770	26,087	70,255
Bombay	15,106	...	15,106	9,325	...	9,325	3,752	...	3,752	20,6	...	20,679	10,745
Grand Total (1905-06	58,099	70,825	128,424	11,587	2,590	14,177	5,934	138	6,072	63,752	72,776	136,528	2,40,606
Grand Total (1904-05	69,850	67,692	187,542	5,768	3,050	8,818	2,501	105	2,606	73,117	70,637	143,754	1,85,892

* Excludes R960 spent on up-keep.
† The figures for 1905-06 are exclusive of topes which were included in the area of plantations shown in 1904-05.

APPENDIX XVII.

[*Vide* paragraphs 37 and 38.]

Outturn of Forest Produce.

I

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			Average outturn per square mile. Reserved Forests.			Protected Forests.			Unclassed Forests.		
	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.
	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R
Bengal	17,839,822	6,495,801	1,62,488	16,269,706	4,507,131	1,37,475	11,709	...	...	4,188	1,525	38	4,753	1,317	40	...	...	...
United Provinces	16,114,376	13,943,077	3,88,696	381,290	24,529	3,187	175,755	22,450	2,532	3,945	3,407	95	2,710	817	106	4,087	522	59
Punjab	13,686,972	87,712	2,56,832	21,998,367	117,726	2,41,311	2,245,803	101,768	47,849	5,807	37	109	4,257	23	47	1,213	55	25
Burma	9,049,070	15,197,000	1,59,860	...	...	...	35,975,717	56,364,000	2,08,560	369	621	6	...	...	...	349	586	2
Eastern Bengal and Assam.	4,799,736	11,239,081	1,52,516	...	...	...	10,500,980	33,269,204	5,08,156	799	1,870	25	...	...	...	455	1,006	22
Central Provinces including Berar.	23,081,062	21,931,511	12,63,642	...	...	...	...	...	9	1,043	909	57	...	...	...	...	...	
Coorg	219,190	172,820	16,180	450	1,500	...	161,420	26,600	...	434	342	32	...	3	...	320	53	...
North-West Frontier	1,613,538	...	19,847	...	...	...	...	...	...	6,895	...	85	...	...	...	...	...	...
Ajmer	510,196	4,551	18,488	...	...	211	...	...	...	3,593	32	130	...	...	...	...	...	...
Baluchistan	48,069	...	12,125	...	...	...	359,480	...	354	182	...	46	...	...	...	...	...	...
Andamans	397,819	177,960	1,052	...	...	...	1,291,143	613,945	9,216	2,250	1,141	7	...	...	...	8,277	3,936	59
Total Bengal, 1905-06	90,389,850	69,249,513	24,56,726	38,649,810	4,650,886	3,82,184	50,722,067	90,397,967	7,76,676	29,505	9,884	630	21,720	2,160	193	14,701	6,158	168
Total Bengal, 1904-05	83,996,525	65,950,422	21,79,178	36,820,998	4,404,059	3,84,659	61,756,296	100,277,084	7,84,785	27,739	9,762	634	22,017	1,510	197	6,242	4,905	107

II

Presidency.		Total area under control of Forest Department.	Timber and Fuel.	Bamboos.	Minor produce.	Average outturn per square mile. Timber and Fuel.	Bamboos.	Minor produce.
		Sq. m.	C. ft.	No.	R	C. ft.	No.	R
Bengal		199,156	179,761,727	164,298,466	36,15,587	65,926	18,202	991
Madras		19,585	22,514,748	32,054,025	14,01,348	1,149	1,637	72
Bombay		14,910	44,058,365	13,821,289	4,95,884	2,955	927	33
Grand Total	1905-06	233,651	246,334,840	210,173,780	55,12,819	1,054	916	24
	1904-05	232,941	251,568,276	215,261,179	58,16,926	1,080	924	25

LIBRARY
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APPENDIX XVIII.

Forest Produce removed by different agencies.

APPENDIX

[*Vide*

Forest Produce removed

Province.	Timber.				Fuel.			
	Removed by Government.	Removed by Purchasers.	Removed by Free-Grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-Grantees.	Removed by Right-holders.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Behgal	89,921	5,686,302	18,709	175,000	246,604	14,492,552	27,192	13,384,957
United Provinces	211,076	4,191,585	82,700	588,887	548,512	7,507,372	283,152	3,288,137
Punjab	1,146,085	5,218,826	101,208	3,280,886	3,250,267	1,335,528	85,431	23,512,911
Burma	4,689,308	22,249,639	527,887	572,729	192,899	15,531,316	61,528	1,199,481
Eastern Bengal and Assam	494,563	4,660,562	500,611	5,800	27,043	4,517,290	4,083,097	1,011,750
Central Provinces including Berar	687,597	3,611,055	78,722	61,657	586,598	14,767,850	1,647,117	1,640,466
Coorg	105,710	186,170	1,110	...	18,500	69,570	...	...
North-West Frontier	244,989	918,049	...	...	165,846	241,588	8,136	34,980
Ajmer	13	4,907	...	463	240	502,369	2,204	..
Baluchistan	280	3,819	12,904	...	24,375	365,159	1,018	...
Andamans	606,198	34,370	29,745	...	605,450	...	237,920	...
Total Bengal, 1905-06	8,275,740	46,765,284	1,353,596	4,685,422	5,666,334	55,330,588	6,436,795	44,072,682
Total Bengal, 1904-05	8,245,253	45,650,694	1,794,088	2,626,395	7,730,868	64,610,364	6,846,069	44,744,729
Madras	536,203	1,785,532	95,877	97,715	10,429,234	9,309,215	3,406	257,561
Bombay	1,484,362	2,285,501	309,479	...	4,100,378	23,367,369	13,157	12,498,119
Grand Total, 1905-06	10,296,310	50,836,317	1,758,952	4,783,137	20,195,946	88,007,122	6,453,358	56,828,362
Grand Total, 1904-05	9,997,565	51,218,529	1,992,663	2,765,747	22,817,791	106,996,536	6,855,632	48,923,323

XVIII.

paragraph 34.]

by different agencies.

Bamboos.				Minor Produce including grass and grazing.				Province.	
Removed by Government.	Removed by Purchasers.	Removed by Free-Grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-Grantees.	Removed by Right-holders.		
No.	No.	No.	No.	R	R	R	R		
485,910	6,486,066	30,476	4,000,450	2,486	1,83,530	906	1,13,041	Bengal.	
167,814	13,605,836	...	216,406	80,208	2,45,428	12,005	56,774	United Provinces.	
13,537	293,669	...	...	3,740	1,69,337	1,129	3,71,786	Punjab.	
50,000	67,078,000	39,000	4,394,000	17,479	2,19,568	11,324	1,19,749	Burma.	
15,435	40,538,177	2,084,373	1,870,400	67,575	2,30,817	3,48,237	14,043	Eastern Bengal and Assam.	
146,205	20,845,600	330,706	609,000	12,957	11,96,414	19,892	29,388	Central Provinces including Berar.	
...	192,420	8,500	...	...	16,157	23	...	Coorg.	
...	...	...	...	480	11,620	7,024	723	North-West Frontier.	
194	4,357	...	...	1,461	5,207	9,526	7,020	Ajmer.	
...	...	...	...	26	1,676	906	9,891	Baluchistan.	
*374,905	20,400	396,600	...	7,084	191	2,529	...	Andamans.	
1,254,030	149,061,525	2,889,655	11,090,256	1,93,496	22,80,225	4,13,501	7,32,415	1905-06	Total Bengal.
960,359	154,636,335	4,141,920	10,474,500	1,61,794	20,45,299	4,13,576	7,28,069	1904-05	
2,574,515	29,208,397	249,024	22,089	55,877	13,03,891	559	41,021	Madras.	
9,178	7,038,707	98,004	6,680,400	2,35,728	5,91,778	23,007	1,36,371	Bombay.	
3,837,723	185,806,629	3,236,683	17,792,745	4,85,101	41,74,894	4,37,067	9,09,810	1905-06	Grand Total
1,639,150	196,705,592	4,420,082	12,496,855	2,57,165	37,52,518	4,25,105	13,82,138	1904-05	

* Includes 364,905, removed by District Officers.

APPENDIX XIX.

[*Vide* paragraphs 39 to 41.]

Comparative Statement of Revenue and Expenditure.

Province.	Revenue.		Surplus.		Deficit.		Proportion of Surplus to Gross Revenue.	Net revenue per square mile of land under control of Forest Department.
	1905-06.	Average for preceding 5 years.	1905-06.	Average for preceding 5 years.	1905-06.	Average for preceding 5 years.		
	₹	₹	₹	₹	₹	₹	Per cent.	₹
Imperial	7,255	4,166	...	...	76,512	79,942	...	...
Bengal	11,18,542	12,02,924	5,29,669	5,51,373	...	...	47·3	69
United Provinces . . .	24,33,428	19,96,812	10,28,246	9,04,972	...	...	42·3	247
Punjab	17,81,653	15,95,410	5,17,990	6,04,501	...	...	29·1	55
Burma	1,03,29,869	75,81,125	63,91,598	45,80,992	...	...	61·9	52
Eastern Bengal and Assam . .	11,06,097	6,26,819	5,12,186	2,40,074	...	...	46·3	18
Central Provinces and Berar .	24,49,131	15,54,941	11,41,978	4,63,002	...	...	46·6	52
Coorg	2,45,419	1,83,137	1,49,671	99,400	...	...	61·0	296
North-West Frontier . .	1,28,529	76,740	33,271	20,860	...	1,299	25·9	142
Ajmer	15,002	11,686	...	331	2,129	4,927	...	...
Baluchistan	21,481	18,384	...	...	4,262	6,284	...	...
Andamans	5,82,511	3,84,800	2,46,526	1,37,789	...	...	42·3	126
Forest School . . .	3,080	3,418	...	...	77,589	63,508	...	...
Forest Surveys . . .	...	853	...	...	30,044	31,921	..	...
Total Bengal .	2,02,22,000	1,53,77,115	1,03,56,172	69,35,112	...	...	51·2	52
Madras	29,67,600	25,96,872	7,01,000	7,97,359	...	...	23·6	36
Bombay	34,84,993	26,88,502	13,58,900	7,91,614	...	...	39·0	50
Grand Total . 1905-06 .	2,66,74,593	2,06,62 489	1,24,16,072	85,24,085	...	...	46·5	50
Grand Total . 1904 05 .	2,40,29,950	1,96,58,421	1,10,62,192	83,88,934	...	...	46·0	47

APPENDIX XX.

[*Vide* paragraphs 39 to 41].

Estimated value of Forest Produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Minor produce.	Grass and Grazing.	Total.
	₹	₹	₹	₹	₹	₹
Bengal	9,995	51,344	5,282	49,348	65,341	1,81,310
United Provinces . .	76,617	61,441	942	7,318	1,04,111	2,50,429
Punjab	1,11,921	2,51,065	...	49,524	3,23,391	7,35,901
Burma	1,01,269	20,607	17,624	10,427	1,18,198	2,68,125
Eastern Bengal and Assam .	31,967	63,961	9,465	2,02,640	1,59,640	4,67,673
Central Provinces including Berar.	(a)15,368	(a)76,732	(a)11,363	(a)20,784	(a)38,435	(a)1,62,682
Coorg	151	...	29	23	426	629
North-West Frontier . .	...	43,116	...	7,747	7,650	58,513
Ajmer	42	...	...	16	19,923	19,981
Baluchistan . . .	2,195	16	...	906	10,025	13,142
Andamans . . .	3,264	6,638	951	2,999	...	13,846
Total Bengal .	3,52,789	5,74,920	45,656	3,51,726	8,47,140	21,72,231
Madras	49,460	5,003	2,149	39,111	3,496	99,219
Bombay	19,221	1,88,790	32,090	1,19,033	8,65,489	12,24,623
Grand Total 1905-06 .	4,21,470	7,68,713	79,895	5,09,870	17,16,125	34,96,073
Grand Total 1904-05 .	3,92,364	7,57,149	81,908	4,95,513	17,73,727	35,00,661

(a) These figures are merely an estimate. They include an estimate of the value of general forest concessions in Berar, but not as regards the Northern and Southern Circles. Excluding the estimated value of the Berar concessions, the figures would be as follows:—

4,219 6,919 1,848 8,004 11,827 32,817.

APPENDIX XXI.

[*Vide* paragraphs 39 to 41.]

Details of Revenue and Expenditure.

				R
Gross Receipts.	(*a*) Wood			2,05,17,696
	(*b*) Minor forest produce			19,77,327
	(*c*) Forest stamps and commutation fees for forest produce			8,17,960
	(*d*) Grazing			20,86,409
	(*e*) Revenue from forests not managed by Government			4,71,140
	(*f*) Miscellaneous			8,04,061
	TOTAL REVENUE			2,66,74,593
Expenditure.	A *Recurring*	(*a*) Administration.	(i) Superior Staff	23,23,653
			(ii) Exchange Compensation Allowance.	84,248
			(iii) Subordinate Staff (including Rangers, Foresters and Guards).	21,12,654
			(iv) Office Establishments (including Contingencies).	10,41,514
		(*b*) Working	(1) Extraction	44,34,528
			(2) Roads and Buildings	8,63,004
			(3) Fire-protection	5,77,787
			(4) Cultural operations	5,18,295
			(5) Live-stock, stores and plant.	5,08,153
			(6) Working-Plans	86,741
			(7) Rent for leased forests	8,57,939
			(8) Miscellaneous	2,08,980
		(*c*) Expenditure on realization of revenue from forests not managed by Government.		21,363
		(*d*) Forest Science and Education (including all "A" and "B" charges of Forest School)		80,669
			Total	1,37,19,523
	B Extraordinary	(*e*) Forest Settlement		79,366
		(*f*) Forest Surveys		3,26,091
		(*g*) Forests Demarcation		1,33,536
			Total	5,38,993
			GRAND TOTAL EXPENDITURE	1,42,58,521
			Net Revenue	1,24,16,072

APPENDIX XXII.

Summary of Revenue and Expenditure of the Forest Department in India for the financial year 1905-06.

APPEN

[*Vide* paragraphs

Summary of Revenue and Expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma (Lower.)	Burma (Upper.)	Eastern Bengal and Assam.	Central Provinces including Berar.	Coorg.	North-West Frontier Province.
REVENUE.										
I.—Timber and other produce removed from the forests by Government agency.	3,011	96,837	4,48,013	12,22,268	43,42,285	10,65,876	2,43,660	3,60,676	1,86,167	58,175
II.—Timber and other produce removed from the forests by consumers or purchasers.	4,244	9,62,907	18,82,249	4,45,326	14,66,198	26,40,995	6,64,542	20,15,482	42,619	64,186
III.—Drift and waif wood and confiscated forest produce.	...	6,767	19,951	75,167	2,97,300	46,128	25,835	1,582	...	12
IV.—Revenue from forests not managed by Government.	...	...	13,039	3,473	3,32,233	...	96,356	130	...	...
V.—Miscellaneous . . .	...	52,031	70,176	35,419	83,690	55,164	75,703	71,261	16,633	6,156
Total Revenue .	7,255	11,18,542	24,33,428	17,81,653	65,21,706	38,08,163	11,06,096	24,49,131	2,45,419	1,28,529
EXPENDITURE.										
A.—Conservancy and Works.										
I.—Timber and other produce removed from the forests by Government agency.	...	60,036	2,44,467	3,94,333	11,49,108	3,89,020	1,47,563	1,13,865	14,449	31,360
II.—Timber and other produce removed from the forests by consumers or purchasers.	...	89,462	37,983	1,292	30,344	23,652	11,787	1,19,733	...	100
III.—Drift and waif wood and confiscated forest produce.	...	2,826	6,890	14,565	104,591	30,206	969	12	...	...
IV.—Revenue from forests not managed by Government.	...	...	3,827	34	2,295	...	14,850	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	...	...	3,58,426	4,13,312	...	...	24,984	...	...	15,850
VI.—Live-stock, stores, tools and plant.	...	7,824	23,867	5,576	66,459	40,875	24,960	33,624	10,927	449
VII.—Communications and buildings	...	79,456	1,66,790	48,363	65,759	73,102	45,391	1,02,021	3,631	5,705
VIII.—Demarcation, improvement, and extension of forests.	134	45,391	1,10,730	44,687	3,69,140	2,83,710	67,416	1,44,795	11,823	10,900
IX.—Miscellaneous . . .	353	4,116	7,897	4,066	13,888	11,336	4,614	16,112	372	817
Total A.—Conservancy and Works .	487	2,89,111	9,60,877	9,26,228	18,01,584	8,60,901	3,42,534	5,30,162	41,202	65,181
B.—Establishments.										
I.—Salaries	65,637	2,47,385	3,56,866	2,65,942	5,41,307	5,16,872	2,03,448	6,57,952	47,176	24,496
II.—Travelling allowances . .	13,083	43,065	55,825	47,301	72,948	84,581	34,217	65,398	6,146	3,753
III.—Contingencies . . .	4,560	13,948	31,614	24,193	33,513	26,357	13,711	53,641	1,224	1,828
Total B.—Establishments .	83,280	3,04,398	4,44,305	3,37,436	6,47,768	6,27,810	2,51,376	7,76,991	54,546	30,077
Grand Total of Expenditure .	83,767	5,98,509	14,05,182	12,63,664	24,49,352	14,88,711	5,93,910	13,07,153	95,748	95,258
Surplus .	...	5,25,033	10,28,246	5,17,989	40,72,354	23,19,452	5,12,186	11,41,978	1,49,671	33,271
Deficit .	76,512	...	...	...	...	...	...	...	...	...

DIX XXII.

39, 40, and 41.]

Forest Department in India for the financial year 1905-06.

Ajmer.	Baluchistan.	Andamans.	Forest School.	Forest Surveys (Imperial.)	Total Bengal Presidency.	Madras.	Bombay.	Grand Total.	Budget Heads.
									REVENUE.
2,668	7,599	5,77,167	...	...	86,14,402	9,08,784	14,83,564	1,10,06,750	I.—Timber and other produce removed from the forests by Government agency.
11,289	2,613	3,564	...	...	1,02,06,214	19,05,324	18,87,684	1,39,99,222	II.—Timber and other produce removed from the forests by consumers or purchasers.
11	7	...	...	...	4,72,760	16,777	3,549	4,93,086	III.—Drift and waif wood and confiscated forest produce.
...	11,034	...	...	...	4,56,365	...	14,875	4,71,140	IV.—Revenue from forests not managed by the Government.
1,034	228	1,780	3,080	...	4,72,355	1,36,719	95,321	7,04,395	V.—Miscellaneous.
15,002	21,481	5,82,511	3,080	...	2,02,21,096	29,67,604	34,84,993	2,66,74,593	Total Revenue.
									EXPENDITURE.
									A.—Conservancy and Works.
970	5,381	1,49,394	...	...	26,93,946	5,12,113	5,12,738	37,24,797	I.—Timber and other produce removed from the forests by Government agency.
91	...	...	...	...	3,14,444	1,18,707	1,14,462	5,47,613	II.—Timber and other produce removed from the forests by consumers or purchasers.
	...	...	...	...	1,60,067	1,865	186	1,62,118	III.—Drift and waif wood and confiscated forest produce.
...	357	...	...	...	21,363	...	...	21,363	IV.—Revenue from forests not managed by Government.
...	...	...	...	...	8,12,572	18,615	26,752	8,57,939	V.—Rent of leased forests and payments to shareholders in forests managed by Government.
605	53	126,843	1,506	...	3,52,568	1,38,919	18,172	5,09,659	VI.—Live-stock, stores, tools and plant.
1,032	899	8,577	1,114	...	6,01,340	1,41,304	1,21,474	8,64,118	VII.—Communications and buildings.
1,675	150	11,513	...	30,044	11,32,108	3,83,430	2,06,278	17,21,816	VIII.—Demarcation, improvement, and extension of forests.
143	40	7,251	2,973	...	73,978	8,758	1,29,217	2,11,953	IX.—Miscellaneous.
4,524	6,380	3,03,578	5,593	30,044	61,68,386	13,23,711	11,29,279	86,21,376	Total A.—Conservancy and Works.
									B.—Establishments.
10,626	15,875	28,121	60,248	...	30,41,951	7,12,313	8,33,487	45,87,751	I.—Salaries.
1,032	2,798	3,538	8,633	...	4,42,318	1,61,664	1,11,809	7,15,791	II.—Travelling allowances.
949	690	748	6,19[illegible]	...	2,13,171	68,914	51,518	3,33,603	III.—Contingencies.
12,607	19,363	32,407	75,076	...	36,97,440	9,42,891	9,96,814	56,37,145	Total B.—Establishments.
17,131	25,743	3,35,985	80,669	30,044	98,65,826	22,66,602	21,26,093	1,42,58,521	Grand Total of Expenditure.
2,129	...	2,46,526	...	...	1,03,56,170	7,01,002	13,58,900	1,24,16,072	Surplus.
	4,262	...	77,589	30,044	...	...	...	...	Deficit.

APPEN

[*Vide* paragraphs

Revenue, Expenditure and Surplus of the Forest Department throughout India during

(I) REVE

Province.	1881-82.	1882-83	1883-84	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91	1891-92.	1892-93.	18 3-94
	R	R	R	R	R	R	R	R	R	R	R	R	R
Imperial*	27,407	30,732	32,907	26,574	14,708	4,186	4,847	4,017	4,759	6,370	6,688	5,240	2,86 0
Bengal	6,33,734	6,90,9[illegible]9	6,91,3[illegible]4	5,71,152	5,97,132	6,53,634	6,57,794	6,76,907	7,68,718	7,27,[illegible]92	7,89,553	7,44,880	8,01,610
United Provinces	10,66,094	10,13,403	16,11,383	15,72,319	14,61,495	15,73,556	12,17,451	14,62,802	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860
Punjab	6,88,309	7,66,709	9,10,177	7,19,352	8,50,419	11,27,277	7,86,936	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630	9,18,300
Burma (Lower)	22,51,[illegible]04	25,03,896	25,09,275	16,70,982	20,23,859	19,98,667	22,18,897	26,09,305	31,34,716	26,77,671	28,58,114	35,83,370	34,89,350
Burma (Upper)	...	...	...	...	...	1,18,074	2,96,876	15,79,928	18,16,070	16,44,297	13,27,300	20,76,630	2[illegible],55,750
Eastern Bengal and Assam	1,66,054	2,43,605	2,11,445	1,87,414	1,96,656	2,12,[illegible]11	2,67,512	3,03,882	3,79,498	3,26,793	3,36,129	3,82,830	4,88,500
Central Provinces	11,72,884	9,[illegible]7,647	9,91,760	10,27,2[illegible]2	10,36,894	9,57,410	10,93,369	11,80,405	11,56,181	12,13,461	13,59,900	12,30,850	11,34,480
Coorg	1,00,364	1,38,022	87,822	1,13,233	89,586	99,291	1,27,028	1,36,183	92,753	1,35,561	1,82,897	1,80,660	1,73,790
North West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	4,065	7,126	8,198	10,456	9,6[illegible]7	11,274	14,293	13,574	11,592	15,266	19,799	14,890	14,620
Andamans	48,107	70,858	24,762	22,213	23,944	31,870	1,04,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790
Forest School	...	...	...	73	273	416	777	449	1,237	1,184	1,788	1,980	1,990
Forest Surveys (Imperial)	...	348	36	234	202	241	40	315	220	2,104	257	520	240
Total	61,39,121	61,51,365	70,85,108	59,44,204	63,04,965	67,77,936	68,19,685	91,19,610	1,01,53,811	93,80,674	99,06,351	1,10,47,530	1,14,67,960
Madras	8,06,913	9,06,442	9,53,704	11,66,916	11,92,650	12,45,911	13,74,920	15,15,006	15,57,627	17,95,4[illegible]8	16,94,216	15,77,210	19,47,180
Bombay	18,28,117	20,90,353	25,03,100	27,71,842	33,66,[illegible]86	30,32,676	30,32,5[illegible]7	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550	37,94,350
Total (British India)	87,74,146	94,48,100	1,05,41,912	98,85,962	1,08,69,901	1,10,57,493	1,12,27,182	1,34,84,806	1,48,49,134	1,44,64,302	1,[illegible]8,58 216	1,58,94,290	1,72,09,490
Berar	2,33,511	2,92,014	3,08,218	2,97,185	3,19,851	3,26,261	4,06,447	4,07,977	4,40,511	4,87,109	5,11,185	4,31,020	4,82,800
Forest Surveys (Berar)	...	...	...	931	631	651	596	...	...	...	...	...	...
Baluchistan	18,616	5,039	4,752	6,089	13,962	14,081	14,063	5,668	13,897	15,724	20,609	19,030	20,730
Grand total	90,26,273	97,45,153	1,08,54,882	1,01,90,170	1,12,05,345	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,135	1 [illegible] 17,010	1,63,44,340	1,77,13,020

The figures in this statement have been
*Includes certain home receipts and
†Amalgamated with the Central

(II) EXPEN

Imperial*	77,635	87,268	98,266	96,306	88,245	86,299	78,626	86,199	81,311	85,414	65,788	1,07,270	80,840
Bengal	3,94,612	3,82,183	3,87,813	4,11,915	3,70,399	4,22,781	3,90,368	3,76,270	3,98,150	4,14,004	4,22,930	3,81,610	4,04,040
United Provinces	9,16,212	8,39,025	10,41,885	10,20,101	9,74,519	9,19,580	8,30,748	8,44,544	9,63,151	9,18,195	9,58,211	9,28,540	9,63,020
Punjab	5,16,269	5,60,750	6,53,116	5,58,070	6,75,483	7,16,510	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430
Burma (Lower)	11,50,224	1,12,23,955	12,17,824	12,12,233	11,50,952	10,75,830	10,32,694	12,31,944	13,32,844	10,86,474	13,25,121	13,63,250	13,41,640
Burma (Upper)	...	...	...	...	...	2,138	1,21,152	7,85,129	2,73,800	3,02,315	3,73,859	4,41,750	5,20,860
Eastern Bengal and Assam	1,65,361	1,71,823	1,99,562	1,97,699	2,11,494	2,12,287	2,26,892	2,09,905	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220
Central Provinces	4,97,013	4,12,247	4,36,058	4,95,821	4,45,[illegible]12	4,99,293	5,52,939	6,68,697	6,96,445	7,35,554	8,03,915	8,51,400	9,32,190
Coorg	59,796	64,770	75,623	76,951	65,690	74,088	72,629	80,175	72,420	65,818	86,860	73,090	86,890
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	13,954	11,284	14,574	16,316	16,469	20,744	18,897	15,676	12,701	12,720	13,986	15,000	15,900
Andamans	2,306	1,840	12,161	22,760	37,035	25,769	62,679	57,295	94,975	1,30,052	1,79,909	2,31,210	2,44,550
Forest School	...	...	...	22,568	24,239	30,831	33,129	32,961	29,646	35,191	44,347	50,400	65,530
Forest Surveys (Imperial)	42,489	41,595	30,940	19,823	19,180	28,348	32,868	22,164	21,188	24,324	26,882	22,160	27,900
Total	38,35,871	38,01,740	41,67,252	41,50,563	40,79,137	41,14,548	41,31,533	50,04,844	48,79,615	47,47,954	52,09,608	53,86,020	55,88,010
Madras	6,03,419	6,45,352	7,86,733	8,96,505	9,37,972	11,53,122	11,29,212	12,20,791	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770
Bombay	11,69,181	12,78,770	15,64,172	17,78,723	18,39,461	19,52,910	19,44,005	16,93,962	17,70,691	18,69,887	19,31,457	19,04,970	21,71,940
Total (British India)	56,08,471	57,25,862	65,18,157	68,25,791	68,56,570	72,20,580	72,04,750	79,19,600	78,11,543	78,64,754	84,65,319	86,21,380	90,22,720
Berar	1,52,985	1,55,054	1,56,779	1,52,649	1,59,242	1,71,704	1,83,765	1,70,212	1,76,549	1,68,921	1,98,366	2,29,230	2,54,250
Forest Surveys (Berar)	...	...	15,043	32,804	42,940	45,472	42,098	23,955	6,464	...	...	...	...
Baluchistan	17,682	11,962	16,911	13,266	15,799	17,836	17,753	15,994	17,962	29,450	30,497	55,620	63,730
Grand Total	57,79,138	58,92,878	67,06,890	70,26,510	70,74,551	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700

* Includes pay of Inspector General of Forests
† Amalgamated with the Central Provinces.

(III) SUR

Imperial*	−50,228	−56,536	−65,359	−69,732	−73,537	−82,113	−73,779	−82,182	−76,552	−79,044	−59,100	−1,02,030	−78,160
Bengal	2,39,122	3,11,776	3,06,521	1,59,237	2,27,033	2,30,853	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570
United Provinces	1,49,882	1,74,378	5,69,498	5,52,218	4,86,976	6,53,976	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840
Punjab	1,72,039	2,05,959	2,57,031	1,91,282	1,74,936	4,10,767	1,09,024	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360	2,76,870
Burma (Lower)	10,81,580	12,74,941	12,91,451	4,58,749	8,72,907	9,22,837	11,86,203	13,77,361	18,01,872*	15,91,197	15,32,993	22,20,120	21,47,710
Burma (Upper)	..	...	...	...	...	1,05,886	1,75,724	7,94,799	15,32,270	13,41,982	9,53,441	16,34,880	17,74,890
Eastern Bengal and Assam	693	76,782	11,883	−17,285	−14,838	−276	40,420	93,977	1,22,369	42,941	68,604	1,18,760	2,20,280
Central Provinces	6,75,871	5,6[illegible]400	5,58,711	5,31,381	5,91,462	4,58,117	5,40,430	5,11,708	4,59,736	4,77,907	5,55,985	3,79,450	2,02,290
Coorg	40,568	73,252	12,799	36,282	23,696	25,203	54,399	26,008	20,333	69,743	96,037	1,07,598	86,900
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	−9,889	−4,158	−6,376	−5,860	−6,772	−9,470	−4,664	−2,102	−1,109	2,546	5,813	−110	−1,280
Andamans	46,101	69,018	12,601	−547	−13,091	6,101	41,383	48,780	67,220	28,274	92,429	1,29,280	1,97,240
Forest School	...	...	...	−22,495	−23,966	−30,416	−32,352	−32,512	−28,409	−34,007	−42,559	−48,420	−63,540
Forest Surveys (Imperial)	−42,489	−41,247	−30,904	−19,589	−18,978	−28,107	−32,828	−21,849	−20,968	−22,220	−26,625	−21,640	−27,660
Total	23,03,250	26,49,565	29,17,856	17,93,641	22,25,828	26,63,358	26,88,152	41,14,766	52,74,196	46,32,720	46,96,743	56,61,510	58,79,950
Madras	2,03,189	2,61,090	1,66,971	2,70,411	2,60,678	93,789	2,45,708	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820	5,84,410
Bombay	6,58,936	8,11,583	9,38,928	9,96,119	15,26,825	10,79,766	10,88,572	11,56,228	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410
Total (British India)	31,65,675	37,22,238	40,23,755	30,60,171	40,13,331	38,36,913	40,22,432	55,65,206	70,37,591	65,99,548	64,19,897	72,72,910	81,86,770
Berar	80,526	1,36,960	1,51,439	1,44,536	1,60,609	1,54,557	2,22,682	2,37,765	2,63,992	3,18,188	3,12,819	2,01,790	2,28,550
Forest Surveys (Berar)	...	...	−15,043	−33,870	−42,309	−44,821	−41,502	−23,955	−6,464	...	...	...	...
Baluchistan	934	−6,923	−12,159	−7,177	−837	−3,755	−3,690	−10,326	−4,065	−13,726	−9,888	−36,590	−43,000
Grand Total	32,47,135	38,52,275	41,47,992	31,63,660	41,30,794	39,42,894	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320

* Includes pay of Inspector General of Forests, certain home
† Amalgamated with the Central Provinces.

DIX XXIII

39 to 41.]

the 25 (financial) years from 1881-82 to 1905-06.

NUE.

1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	Provinces.
R	R	R	R	R	R	R	R	R	R	R	R	
4,980	2,690	4,100	19,130	17,540	6,090	2,463	3,484	3,659	7,455	3,768	7,255	Imperial.*
7,95,670	9,18,710	13,7 ,850	11,89,280	9,72,310	11,38,910	12,33,339	12,92,237	12,56,217	10,65,523	11,67,172	11,18,542	Bengal.
16,58,250	16,01,340	14,44,820	13,86,670	15,68,040	16,14,740	15,65,463	17,15,508	20,2 ,324	22,80,116	23,97,318	24,33,428	United Provinces.
10,32,430	10,14,500	11,07,720	10,68,470	14,74,430	14,00,770	13,50,842	14,47,558	15,86,408	17,17,7 7	18,74,113	17,81,653	Punjab.
32,74,200	24,14,550	38,18,270	40,8 ,200	42,22,960	43,0 ,23	45,43, 3	36,06,453	37,22,602	49, 3,247	54,85,700	65,21,7 6	Burma (Lower).
21,62,580	22,81,280	25,6 ,68	31,29,060	41,27,930	35,06,820	35,11,081	22,67,18	30,16,4 1	33,15,288	31,74,056	38,08,163	Bur a (Upper.
4,35,090	4,25,030	4,36,440	3,84,820	3,98,180	5,68,1 0	5,49, 21	5,12,96	5,8 ,200	6,75,73	8,15,677	11,06,096	Eastern Be gal and A ssam.
10,08,630	9,96,940	7,73,320	7,80,050	9,95,100	8,19,26	9, 3,062	11, 5,723	16,84,428	19,98,032	20,13,453	24,49,131	Ce tral Provinces.
1,53,050	1,35,250	93,000	1,30,910	1,55,070	1,62,410	1,37,596	1,70,242	1,90,730	2, 4, 31	1,94,087	2,15,119	Coorg.
...	...	...	...	...	..	...	13,012	1,01,123	1,01,813	90,991	1,28,529	North-West Frontier.
12,840	15,610	12,370	15,540	14,120	10,270	10,646	6,865	9,736	13,884	17,297	15,002	Ajmer.
1,14,530	1,32,120	3,62, 70	4,33,710	2,29,460	2,60,6 0	2 77,886	2,66,90	3,26,035	4,32,381	6,20,796	5,82,511	Andamans.
2,790	4,310	2,850	2,8 0	2,360	3,210	3,697	3,745	3,252	3,033	3,557	3,080	Forest School.
80	510	400	220	290	420	327	473	3,034	431	...	...	Forest Surveys (Imperial).
1,06,55,120	1,09,42,870	1,19,87,190	1,26,26,950	1,41,78,090	1,37,9 ,830	1,41,49,286	1,24,22,451	1,45,09,229	1,67,89,118	1,81,57,621	2,02,00,515	Total.
18,94,330	21,10,570	23, 3,330	21,36,490	21,10,520	23, 2,290	23,4 ,170	25,13,430	26,13,819	26,57,727	28,29,216	29,67,604	Madras.
37,50,030	35,36,670	30,32,710	26,16,660	22,95,150	24,15,200	29,61,529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,993	Bombay.
1,62,99,180	1,65,90,110	1,73,23,230	1,73,80,100	1,85,83,760	1,85,14,320	1,94,50,985	1,73,45,610	1,94,52,204	2,21,98,384	2,40,07,395	2,66,53,112	Total (British India).
4,73,400	4,94,340	5,17,820	4,00,350	4,39,840	4,78,230	3,02,252	4,63,393	†	†	†	†	Berar
...	...	...	...	...	...	...	...	...	...	...	...	Forest Surveys (Berar).
16,300	14,930	15,460	15,040	14,920	17,060	16,956	14,712	19,336	18,363	22,555	21,481	Baluchistan.
1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,593	Grand Total.

furnished by the Comptroller and Auditor General.
undistributable and petty local items.
Provinces.

DITURE.

84 950	80,410	78,960	84,300	85,460	96,550	83,578	79,539	85,017	89,315	83,058	83,767	Imperial*.
3,97,390	4,66,070	6,90,040	6,53,140	4,86,320	5,45,210	5,7 ,606	6,57,131	6,38,014	7,03,508	6,86,589	5,98,519	Bengal.
9,36,310	9,42,860	9,06,010	9,17,830	9,72,030	9,42,380	9,63,139	10,08,739	10,13,938	10,81 438	13,91,583	14,05,182	United Provinces.
7,22,120	6,78,420	7,23,300	7,71,910	8,55,340	12,11,460	8,87,343	9,38 335	9,60,095	11,56,415	10,12,351	12,63,664	Punjab.
13,78,230	13, 7,740	15,03,29	14,04,110	15,29,570	15,01,470	15,21,736	14 26,43	15,53,753	20,30 397	20,06,666	24,49,3 2	Burma (Lower).
5, 9,760	, 75,860	6,25, 30	7,92,500	8,98,620	9,45,970	11,29,951	12,20,021	13,36,510	13,22,097	14,40,258	14,88,711	Burma (Upper).
2,72,010	2,8 140	2,82,01	2,88 830	3,05,360	3,07 140	3,17,97	3,29,112	3,27,4 9	4,25,484	5,03,656	5,93,910	Eastern Bengal and Assam.
9,76,0 0	9, 2 40	9,50 990	9,21,440	8,71,330	10,11,440	9,3 ,763	9,75, 17	12,57,288	12,80,966	13,20, 15	13,07,153	Central Provinces.
85,140	85,840	71,630	87,020	80,100	71,220	70,905	82,333	89,437	92,191	83,820	95,718	Coorg.
...	...	...	...	...	...		19,510	54,08	60, 03	74,958	95,258	North-West Frontier.
14,900	15,730	22,010	14,670	16,300	15,350	16,782	15,927	16,377	16,680	15,611	17,131	Ajmer.
1,22,780	1,02,020	3,16,600	2,17,340	1,38,400	1,40,440	1,40,137	2,04,667	2,81, 02	2,66,1 1	3,42,331	3,85,985	A damans.
65,980	67,950	67, 80	60,920	68,370	73 50	71,238	76,290	66,338	51,339	61,424	80,669	Forest Sch o l.
29,840	29,950	31,970	33,950	33,970	33,980	33,991	33,730	33,985	33,935	28,229	30,014	Forest Surveys (Imperial).
56,26,470	56,41,330	62,70,050	62,78,310	63,31,170	69,79,660	67,71,671	70,68,987	77,14,098	86,18,429	90,53,282	98,40,083	Total.
13,86 350	14,15,610	15,31,300	15,72,850	15,91,670	16,53,530	17,15,43	17,09,554	18,35, 52	17,50 930	19,85,018	22,66 602	adras.
20,67,920	19,58,390	19,69,160	20,73,180	18,33,250	21,28,430	24,08,581	17,19,680	16,76,441	17,75,937	19,03 804	21,26,093	Bombay.
90,80,740	90,45,330	97,73,510	99,24,350	97,68,090	1,07,61,62	1,08,95,683	1,04 96,221	1,12,26,091	1,21,45,296	1,29,43,184	1,42,33,778	Total (British India).
2,51,640	2,45,510	2,41,870	2,44,050	2,38,070	2,34,380	2,35,103	2,2 ,687	†	†	†	†	Berar.
...	...	...	...	...	...	...	...	...	...	...	...	Forest Surveys (Berar).
40,910	41,770	29,770	27,330	27,760	28,680	29,254	24,480	23,240	21,697	24,672	25,743	Baluchistan.
93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	Grand Total.

certain home charges, and undistributable and petty local items.

PLUS.

—79,970	—77,720	—74,850	—65,170	—67,920	—90,460	—81,115	—76,056	—81,358	—81,890	—73,290	—76,512	Imperial*.
3,98,280	4,52,640	6,80,810	5,35,840	4,85,993	5,93,700	6,62,533	6,3 ,106	6,18,233	9,62,015	4,78,883	5,25,033	Bengal.
7,21,910	6,58,480	5,38,430	4,68,820	5,95,090	6,72,360	5, 2,824	7,06,769	10,11,326	11,99,008	10,0 ,735	10,28,246	United Provinces.
3,10,310	3,36,080	3,81 420	2,96,530	6,19,010	1,89,310	4,83,499	5,01,223	6,26, 13	5,61,382	8 62,089	5,17,989	Punjab.
18,95,970	20,56,810	23,14,980	26,82,090	26,93,390	28,03,760	30,18,797	21,80,017	21,68,849	28,92,8 0	34,79,034	40,72,454	Burma (Lower).
16,22,820	17,05,420	19,35,150	24,36,550	32,11,310	25,60,850	23,81,130	10,17,464	16,79,911	20,23,281	20,3 ,798	23,19,452	Burma (Upper).
1,63,080	1,38,890	1,54,430	95,990	92,820	2,10,950	2,01,543	1,83,851	2,52,701	2,50,218	3,12,021	5,12,186	Eastern Bengal and Assam.
32,570	44,600	1,77,670	—1,41,390	1,23,770	—2,22,180	32,299	1,40,506	4,27,140	7,17,065	6,92,814	11,41,978	Central Provinces.
66,910	49,410	21,370	43,830	74,970	88,190	66,691	87,909	1,01,293	1,31,840	1,09,267	1,49,671	Coorg.
...	...	...	...	...	...	...	—6,498	47,038	41,240	16,033	53,271	North-West Frontier.
—2,060	—90	—9,640	870	—1,880	—5,080	—6,136	—9,0 2	—6,611	- 2,796	1,656	—2,129	Ajmer.
—8,250	30,100	45,770	1,86,370	91,060	1,19,660	1,37,749	62,236	44,333	1,66,260	2,78,3 5	2,46,526	A damans.
—6 ,190	—63,640	—61,530	—58,030	—61,010	—70,340	—67,511	—72,746	—63,085	—56,01	—57,867	—77, 89	Fo est School.
—29,760	—29,440	—31,570	—33,730	—33,680	—33,560	—32,664	—33,257	—30,951	—33,304	—28,229	—30,044	Forest Surveys (Imperial).
50,28,650	53,01,540	57,17,140	63,48 610	78,43,920	68,17,170	73,77,615	53,55,464	67,95,131	81,70,689	91,04,339	1,03,60,432	Total.
5,07,680	6,64,960	7,69,030	5,63 640	5,15,850	6,48,760	6,24, 39	8,33,376	7,78,267	9,06,797	8,43,118	7,01,002	Madras.
16,82,110	15,78,280	10,63,550	5,43,470	4,55,900	2,86,770	5,52,948	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	Bombay.
72,18,440	75,44,780	75,49,720	74,55,750	88, 5,670	77,52,700	85,55,302	68,49,389	82,26,113	1,00,53,088	1,10,64,211	1,24,20,334	Total (British India).
2,21,760	2,48,830	2,75,950	1,56,300	2,01,770	2,43,850	67,449	2,37,706	†	†	†	†	Berar.
...	...	...	...	...	...	...	...	...	...	...	...	Forest Surveys (Berar).
—24,610	—26,840	—14,310	—12,290	—12,840	—11,620	—12,298	—9,766	—3,904	—3,334	—2,117	—4,262	Baluchistan.
74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,091	1,24,16,072	Grand total.

harges and undistributable and petty local items.

APPENDIX XXIV.

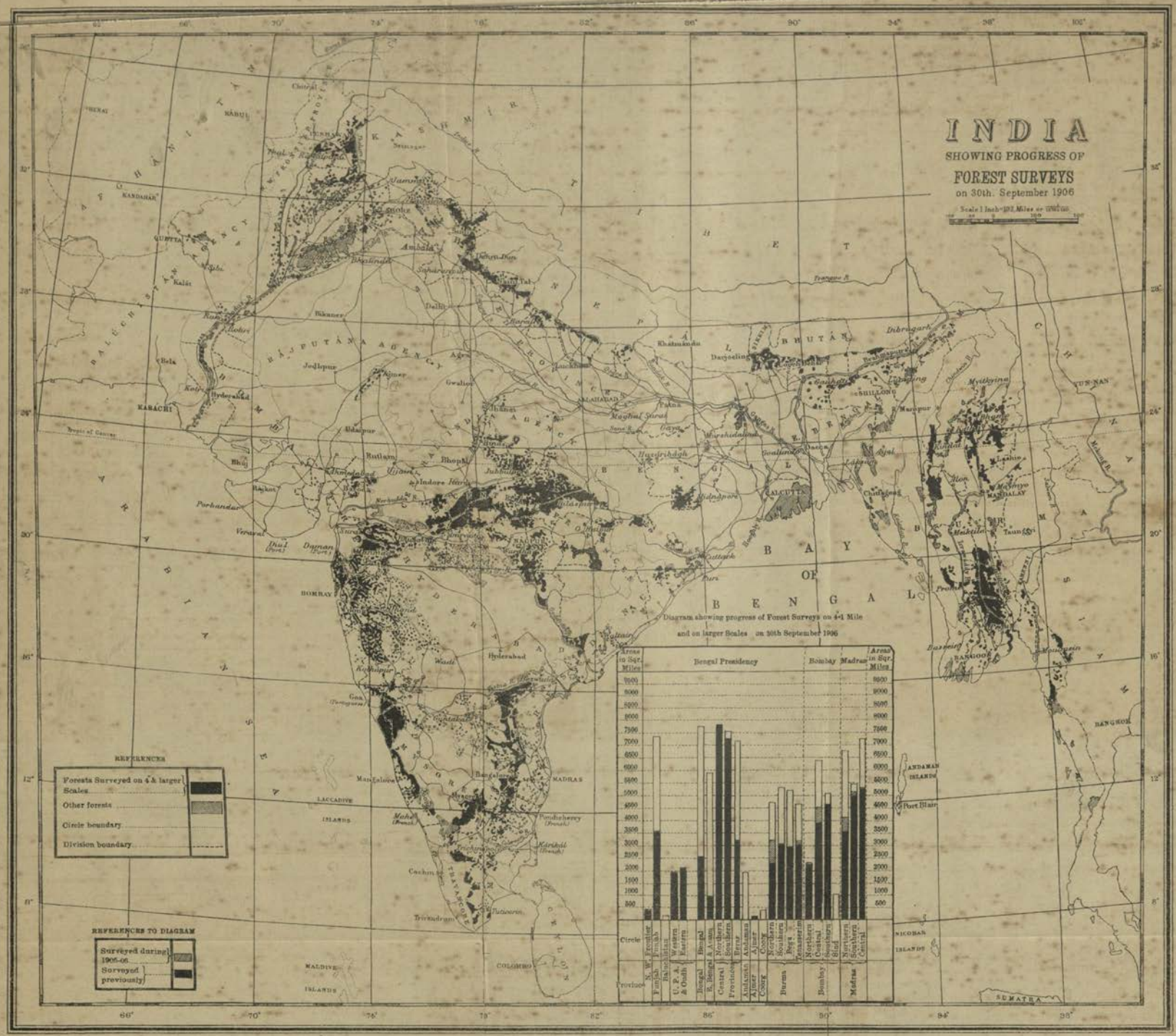
[*Vide* Paragraph 43.]

Exports of Forest Produce.

Articles of Forest Produce.	Quantity in tons of 20 cwt. In the case of teak, cubic tons.		Valuation at port of shipment in 1905-06.	
	Average of 5 years 1900-01 to 1904-05.	In 1905-06.	Total.	Per ton.
			₹	₹
Caoutchouc	189	279	12,82,129	4,595
Lac — Button	1,824	2,093	44,41,287	2,122
Lac — Shell	8,841	10,880	2,64,53,774	2,431
Lac — Stick and other kinds	323	750	9,06,100	1,208
Lac—dye	(*a*)·05	...	...	...
Sandal, ebony and other ornamental woods.	(*b*)	(*b*)	11,70,206	...
Cutch and gambier	4,141	2,754	8,64,331	314
Myrabolams	56,057	60,320	44,60,676	74
Teak	62,672	52,768	70,41,660	133
Cardamoms	95	132	2,97,513	2,254
Total in 1905-06	...	...	4,69,17,676	...
„ „ 1904-05	...	...	4,41,66,143	...

(*a*) Represents figures for 1900-01; there were no exports in 1901-02 to 1904-05.
(*b*) Figures are not available.

G. I. C. P. O.—No. 360 F. & A.—18-1-1908.—397.—A. E. J.



No. D. 6 For 30 1.05 256
No. D. 1 For 4.1-06 256
No. D. 171 For 16.11.06 256
No. D. 134 S. I. 20 12 06 500

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Reg. No. 2-S. 06

REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

FOR THE YEAR

1906-1907

BY

S. EARDLEY-WILMOT, C.I.E.,

INSPECTOR GENERAL OF FORESTS TO THE GOVERNMENT OF INDIA.

CALCUTTA

SUPERINTENDENT GOVERNMENT PRINTING, INDIA

1908

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REVIEW

OF

FOREST ADMINISTRATION IN BRITISH INDIA

FOR THE YEAR

1906-07.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—Alteration in area.

[*Vide* Appendices I and II.]

The area of lands under the control of the Forest Department increased during the year under review by 6,487 square miles, thus bringing up the aggregate to 240,138 square miles of all classes of forests, representing 24·3 per cent. of the area of British India.

2. The main alterations in the area of each class of State Forests were as follows :—

(i) *Reserved and Leased Forests.*

The area of Reserved Forests at the commencement of the year stood at 92,485 square miles ; additions and exclusions aggregating 2,941 and 1,389 square miles, respectively, resulted in a net total of 94,037 square miles at its close. The most important changes in the several provinces were as follows :—

In the *Punjab* 23 square miles were added (mainly owing to corrections after survey) and 48 square miles were excluded, chiefly by transfer to the Canal and Irrigation Department.

The largest additions were made in *Burma* where they totalled 1,792 square miles. Extensive reservations were accomplished but a part of this total is due to correction of areas by recomputation after survey. For this reason exclusions of 751 square miles were also effected.

In *Eastern Bengal and Assam* new reservations and corrections by survey accounted for an increase of 253 square miles, while six miles were excluded.

In *Madras,* transfer from Reserved Lands to Reserved Forests accounted for an increase of 302 square miles, 49 square miles being excluded.

Areas totalling 234 square miles were added in *Bombay,* chiefly in the Southern Circle, and 36 square miles were excluded.

With the exception of an addition of 16 square miles to the Reserved area in *Baluchistan,* there were no changes of importance in the area of Reserved Forests in other provinces.

The area of *leased* forests decreased by 11 square miles, the total being 899 square miles at the close of the year.

(ii) *Protected Forests.*

The area of this class decreased by 550 square miles during the year, leaving a balance of 9,468 square miles at its close. To the extensive disforestations in the Sunderbans Division of Bengal in favour of cultivation may principally be attributed the decrease in area.

(iii) *Unclassed State Forests and Public Forest Lands.*

The area at the close of the year was 136,633 square miles or 5,496 square miles more than at its commencement. The increase is almost entirely due to rectification of areas in the Arakan Division of Burma. The area of this class of forests is but roughly estimated and is therefore liable to considerable fluctuation. It does not always represent wooded area, as, for instance, in Assam, where it comprises all unoccupied waste.

3. The area of the different classes of forests under the control of the Department at the end of the last two years is compared in the following tabular statement :—

Class of Forests.	1905-06.	1906-07.	Difference.
Reserved Forests	91,586	93,138	+1,552
Leased „	910	899	—11
Protected „	10,018	9,468	—550
Unclassed State Forests and Public Forest Lands.	131,137	136,633	+5,496
	233,651	240,138	+6,487

2.—Forest Settlements.

[*Vide* Appendix III.]

4. There was a gratifying increase in this most important work compared with the previous year's results. The area finally settled rose from 707 to 1,812 square miles, while that taken up for settlement during the year was 2,979 against 454 square miles in 1905-06. The approximate cost of settlement operations was R25,108 compared with R29,771 incurred in 1905-06. Of the total area of reserved and protected forests, 4,840 and 3,179 square miles respectively still awaited settlement at the close of the year. The principal balances as regards the former class are in the Central Provinces and Berar, Madras and Bombay; and in Bengal, Punjab and Bombay as regards the latter.

3.—Demarcation.

[*Vide* Appendix IV.]

5. The total length of boundaries, both natural and artificial, increased during the year from 169,693 to 171,375 miles. The length of artificial boundary demarcated was 143,256 miles, the undemarcated boundary amounting to 11,869 miles against 12,385 miles at the close of the preceding year. The length of natural boundaries remained unchanged so that the year's work may be recorded as representing a very slow advance in the important task of demarcating the State forests. The largest balance of work outstanding is recorded against *Bombay* which showed a length of 6,359 miles undemarcated, 4,539 of which are in the Central Circle. In the *Punjab* there remained 3,555 miles to be demarcated, while *Madras* and *Burma* showed balances of 889 and 721 miles respectively. In other provinces the balances to be dealt with were unimportant. New boundary work was completed over 2,611 miles, or 708 miles less than in the previous year, the cost falling from R44,482 to R33,562. The maintenance of existing boundaries appears also to have fallen into arrear, 83,026 miles remaining unrepaired against 76,705 miles in 1905-06, the

cost of repairs falling from R79,967 to R70,311. It seems probable that an ever increasing quantity of work in other directions and an undermanned staff have led to these somewhat unsatisfactory results, but the demarcation of State forests, as one of the initial means of providing for their constitution and protection from encroachment, is of the greatest importance, and particularly so in those provinces where the State forests occur in small blocks intimately mixed up with agricultural land, or where the demands of agriculture are likely to cause pressure on the forest area.

4.—Forest Surveys.*

[*Vide* Appendices V and VI.]

6. At the commencement of the year the Forest Survey Branch ceased to exist as a separate branch of the Survey of India, and the Survey Parties of which it was composed were transferred to the control of other administrative officers.

The Government of India decided that in future all reserved forests shall, as a general rule, be surveyed on the scale of two inches to the mile, and that the surveys shall be carried out in the course of the general programme of the Survey of India, no charge being made to the Forest Department. In cases where surveys on a larger scale are required, or when surveys on the two-inch scale are wanted apart from the regular programme of the Survey of India, the whole cost will be debitable to the Forest Department. Boundaries of forests surveyed on the two-inch scale will be surveyed on the four-inch scale, if required, free of charge.

In accordance with the recommendations of the Survey Committee, arrangements were made for the reception in the Forest Survey Office, Dehra Dun, of the large stock of forest maps and records hitherto kept in the Calcutta Survey Office for stock and issue to the public. Most of the Calcutta stock has already been transferred, and the distribution of forest maps and the custody of all field sections and other original forest records will in future devolve upon the Dehra office.

7. The following forest areas were topographically surveyed during the year :—

Presidency.	2″=1 mile.	4″=1 mile.	Total.
Bengal	1,648	138·5	1,786·5
Madras	...	378	378
Bombay	...	62	62
Total .	1,648	578·5	2,226·5

The total cost of forest surveys debitable to Forests amounted to R95,319. The total cost debited to the Forest Department in 1905-06 amounted to R3,02,078, and the decrease is principally due to the cost of two-inch surveys being now debitable to the Survey of India.

8. During the year 233 maps were published by the Forest Survey Office, including five working-plans and nine other special small scale maps.

* Contributed by the Superintendent of Forest Surveys.

The number of printed copies of maps distributed was 11,100, of which 6,450 were coloured. R1,750 was realised by the sale of maps to the public as against R[illegible] realised last year.

9. Details of surveys carried out in the various provinces are given in the following paragraphs:—

Bengal.—A sum of R518 was expended in the publication of Angul maps of which R360 is debitable to the Forest Department.

The survey of the Sunderbans Reserved Forests was commenced by No. 6 Party of the Survey of India. An area of 1,050 square miles was surveyed on the two-inch scale, the cost of which is borne by the Survey of India.

East in Bengal and Assam.—A small detachment from the Forest Survey Office was deputed to survey the Sitakund Forest Reserve in the district of Chittagong. An area of 24 square miles of detail survey on the four-inch scale was completed. A sum of R5,542 was expended during the year on the completion of the drawing and publication of the four-inch maps of the surveys carried out by Forest Survey Branch. The amount debitable to the Forest Department is R3,453.

No. 20 Party (Burma) of the Survey of India triangulated an area of 4,000 square miles in the Sylhet Division, in anticipation of the detail survey which will be commenced in 1907-08 on the two-inch scale.

United Provinces.—An area of 63½ square miles of detail survey on the four-inch scale was completed by the detachment from the Forest Survey Office in the Surai-Bannbasa Forests, Pilibhit Division, and at Amargarh, Kheri Division.

Seven shooting maps and three maps of the second edition of Kumaon and Garhwal have been published during the year and twenty-one sheets are in the Press.

A sum of R5,018 was expended of which R4,574 is debitable to the Forest Department.

Punjab and North-West Frontier Province.—No forest survey operations were carried on during the year in these provinces. R2,767 and R529 were expended in the Punjab and North-West Frontier Province respectively of which R2,462 and R375 are debitable to the Forest Department. Eleven maps were published. Eleven more are in the Press, and eighty sheets are awaiting publication.

Central Provinces, Berar Circle.—No. 2 Party, Survey of India, surveyed an area of 22 square miles of Forest lands on the two-inch scale in the Amraoti, Akola and Yeotmal districts. All State forests falling within the area taken up were surveyed on this scale, 132·57 linear miles of boundaries of A and B class State forests were surveyed on the four-inch scale. No special triangulation and traversing for Forest Surveys was carried out.

The total cost is debitable to the Survey of India.

Burma.—No. 20 Party, Survey of India, was employed on the Burma Forests and the following areas were surveyed:—

Northern Circle, Mu Division, 125·20 square miles, on two-inch scale.
Southern Circle, Yaw Division, 450·84 square miles, on two-inch scale.
Tenasserim Circle, Thaungyin Division, 51·25 square miles, on four-inch scale.
A sum of R58,236 was expended, including mapping and publishing charges in the Forest Survey Office, of which R14,612 is debitable to the Forest Department.
One hundred and one four-inch standard sheets and two working-plan maps were published during the year.

Madras.—No. 19 Party, Survey of India, surveyed 378 square miles of Forests in Ganjam and North Coimbatore on the four-inch scale. Three hundred and eleven linear miles of forest boundary were also traversed by theodolite in Ganjam, Malabar and Trichinopoly.

The expenditure amounted to R34,205, of which R23,944 is debitable to the Forest Department.

Seventy-eight sheets were published during the year.

Bombay.—No. 17 Party, Survey of India, which had been hitherto employed exclusively on forest surveys, commenced general topographical survey operations this season on the four-inch scale in the West Khandesh District, where an area of 62·4 square miles of forests to four-inch scale was completed, and in addition a skeleton survey of 140 linear miles of forest boundary on the same scale was also carried out.

A sum of R19,079 was expended, of which R13,511 is debitable to the Forest Department.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation of Management.

*Working-Plans.**

[*Vide* Appendices VII, VIII, and IX].

10. During the year under review, only 882 square miles were added to the area to be treated under regular Working-Plans, and to this addition the Bengal, Madras and Bombay Presidencies contributed 197, 602 and 83 square miles, respectively. The paucity of officers accounted apparently for the insufficient progress made. The areas under regular Working-Plans now stand as follows:—

	At commencement of the year. Square miles.	Added during the year. Square miles.	Total. Square miles.
Bengal . . .	30,019	197	30,216
Madras . . .	6,050	602	6,652
Bombay . . .	5,517	83	5,600
Total in 1906-07 .	41,586	882	42,468
„ „ 1905-06 .	37,551	2,371	39,992

The areas for which Working-Plans were under preparation during the year amounted to 11,062 square miles, of which 5,677 square miles were in the Bengal Presidency, 4,051 square miles in the Madras Presidency, and 1,334 square miles in the Bombay Presidency.

At the close of the year, the area remaining to be brought under Working-Plans stood at 184,852 square miles. To this total, Bengal, Madras and Bombay Presidencies contributed 169,550, 8,917 and 6,385 square miles, respectively. It may, however, be remarked that no Working-Plans will be required for some time to come for the large areas of unclassed State forests in various Provinces.

11. The progress made during the year in the preparation of Working-Plans in the various Provinces was as follows:—

Bengal.—A Working-Plan for the Angul forests (229 square miles) was prepared during the year, but submission was deferred pending the preparation of the necessary map. The revised Working-Plan for the Darjeeling forests (39 square miles) and that for the Puri Reserved forests (113 square miles) and the third plan for the Sunderbans forests (3,514 square miles) were sanctioned during the year. The preparation of a second plan for the Reserved forests of the Tista Division (225 square miles) was completed during the year, and a second plan for the Tista Valley forests of the Darjeeling Division (12 square miles) was sanctioned on the recommendation of the Inspector General of Forests as a plan of operations. Efforts were made during the year to regulate the fellings in the Reserved forests of the Hazaribagh District, Palamau Division (57 square miles), in the Reserved forests of the Sambalpur Division (184 square miles) and in the Protected forests known as the Old Reserve of the Sonthal Parganas Division (38 square miles) without the aid of sanctioned Working-Plans but no Preliminary Working-Plan Report was submitted during the year.

United Provinces.—In the *Western Circle*, the Working-Plan for the Naini Tal Municipal forests prescribing selection fellings over an area of 2·2 square miles, the Working-Plan for the Chakrata Cantonment forests laying down the system of improvement fellings over an area of 3·4 square miles were sanctioned during the year. In addition to these the revised Working-Plan for the Saharanpur forests of the Siwalik Division (294 square miles)

* Communicated by the Imperial Superintendent of Working-Plans.

and a scheme for the systematic removal of the dead and dying material in the periodic blocks of the Tehri-Garhwal Leased Chir forests Working-Plan were sanctioned during the year. The Working-Plan for the Tehri-Garhwal Leased Deodar forests (78 square miles) received the sanction of the Local Government shortly after the close of the year and that for the Musoorie Municipal and Landour Cantonment forests (4 square miles) remained in abeyance in the absence of final demarcation. No Preliminary Working-Plan Reports were submitted. In the *Eastern Circle*, no new Working-Plans were sanctioned during the year, but new Working-Plans for the Reserved forests of the Bahraich Division (334 square miles), for the Nawabganj Sál forests of the Gonda Division (21 square miles) and for the Pilibhit Closed forests (71 square miles), as well as the revised Working-Plans for both the Cis-Sarda and Trans-Sarda forests of the Kheri Division, including an area of 34 square miles not yet brought under Working-Plans were under preparation, while Preliminary Working-Plan Reports were under preparation for the Banda Range in Bundelkhand, for the Kumaun Division, and for the Sál bearing area of the Domakhand reserve in the Gorakhpur Division.

Punjab.—No Working-Plan or Preliminary Reports for State or Leased forests were either submitted or sanctioned during the year. With a view to revising the existing Working-Plan for the Kulu Forests, the enumeration of *Pinus excelsa* and *Pinus longifolia* was commenced and the compilation of plans for several Cantonment forests and Municipal forests were ordered but their preparation was not taken in hand during the year. In the forests of the Simla Hill States plans were completed for Kumharsain and Bhajji, and for Dhami was revised.

Burma.—In the *Pegu Circle*, the Working-Plan for the East Yoma, Satsuwa and Tindaw reserves (113 square miles) was sanctioned during the year, but no Preliminary Working-Plan Reports were received. From the *Tenasserim Circle*, no Working-Plan or Preliminary Reports were submitted, and the Working-Plans for the Nyaunglebin Working Circle, and the Tonkan reserves, Shewegyin Division, though completed in manuscript, were not sanctioned during the year. In the *Northern Circle*, the Working-Plans for the Labin, Kyaukka, Tan, Indaung and Newa reserves (184 square miles) and for the Bon, Matu and Waye reserves, Myittha Division (223 square miles), were sent to Press. The Working-Plan for the Mawku Working Circle in the Upper Chindwin Division (309 square miles) was in course of preparation. Preliminary Working-Plan Reports were sanctioned for the Ahlaw Working Circle in the Upper Chindwin Division (188 square miles) and for the Taungdwin Working Circle, Myittha Division (255 square miles). In the *Southern Circle* no regular Working-Plans were sanctioned during the year. A rough Working-Plan for the *padauk* forests of the Shweli Range in the Ruby Mines District, which forms an addendum to that for the Thabeitkyin Range, received sanction, as well as Working-Plans to regulate the planting up of roadside trees in the Minbu and Ruby Mines districts. Data were collected for a Working-Plan for the Hintha-Ondok block of reserves in the latter (198 square miles) ; and a Working-Plan for the Taungdwingy forests (398·8 square miles) was submitted for sanction after the close of the year. The Working-Plan for the Maingtha-Namme block of reserves was also under preparation. Preliminary Working-Plan Reports for the Madaya forests (381 square miles) and for the Yaw reserves (934 square miles) were sanctioned during the year.

Eastern Bengal and Assam.—The Working-Plan for the Sál forests (3 square miles) in the Darrang Division, though submitted during the year, did not receive the sanction of the Local Government till after its close. A working scheme for an area of 2 square miles of Reserved forests and 4 square miles of Unclassed forests around Shillong in the Khasi and Jaintia Hills Division and a Preliminary Working-Plan Report for the reserves in the Nowgong Division (158 square miles) were submitted to the Inspector General of Forests and passed after the close of the year and the field work in connection with the revision of the Working-Plan for the Sál forests of the Goalpara Division was completed.

Central Provinces.—From the *Northern Circle*, no new Working-Plans or Preliminary Reports were submitted during the year and the Working-Plans for the Saugor forests and for the Motipala Range in the Mandla Division were still in the Press at its close. In the *Southern Circle*, no new Working-Plan was sanctioned but proposals were submitted for the revision of the Working-Plans relating to the Sál forests of the Raigarh and Baihar, and the Pandratola forests (16·3 square miles) in the Balaghat Division and to the five sanctioned plans (454 square miles) in force in the Bhandara Division. The proposals for the revision of the Working-Plan for the Lormi Range of the Bilaspur Division are still under consideration. From the *Berar Circle*, no new Working-Plan or Preliminary Reports were submitted but a three years' felling scheme for all A class Reserved forests in the Nimar Division was sanctioned.

North-West Frontier.—The Working-Plans for the Dungagali and Tandiani Range forests (61·2 square miles) and the Khanpur Range forests (31·6 square miles) were submitted and received sanction after the close of the year. The revision of the boundaries of the Agror forests not having been completed, the preparation of a Preliminary Report for these forests was deferred.

Andamans.—A Working-Plan covering an area of 317 square miles for the North Andaman Island was compiled during the year, but has not, however, yet come into force.

Coorg, Ajmer, Baluchistan.—No Working-Plans or Preliminary Reports were compiled during the year for these provinces.

Madras.—During the year Working-Plans for 602 square miles were sanctioned and plans for 1,041 square miles were under preparation. In the *Northern Circle*, the preparation of a Preliminary Working-Plan Report for the Polavaram range commenced in 1905-06 was not completed and a report for the Kothapatam casuarina areas in Guntur was merged in the proposals for the whole delta tract. In the *Central Circle*, Preliminary Working-Plans were under preparation in respect of certain Working Circles of the Proddatur, Cuddapah and Rayachoti ranges of North Cuddapah District. In the *Southern Circle*, a Preliminary Working-Plan was prepared for some of the reserves included in the closed Working Circles and for others not included in any of the Working Circles of the South Canara District, but remained under consideration. Preliminary Working-Plans for the Mudumalai, Benne and Kumbarakolu forests in the Nilgiri District and for fuel fellings in Sattyamangalam Range in the North Coimbatore Division were also prepared during the year.

Bombay.—In the *Northern Circle*, the revised Working-Plan for the Halol Range, the Mandir Working-Plan and the Working-Plan for the Kolaba Division and the Bandh reserves of the Ratnagiri District were prepared during the year, but awaited the sanction of the Local Government. No Preliminary Working-Plan Report was drawn up. In the *Central Circle*, a provisional Working-Plan for the Babul reserves of the Jamner, Bhusaval and Edalabad ranges of the East Khandesh Division was sanctioned; a Working-Plan for the fuel supply of the Lonavla and Khandala Sanitaria awaited the sanction of the Local Government; and a Working-Plan for the Jamner Teak forests was in the Press when the year closed. A Preliminary Report on the Kurad, Patan and Shirola Teak forests was approved during the year. In the *Southern Circle*, a Plan for the Supa Fuel Working Circle, North Kanara Division, was sanctioned and the Plans for the Mundgod Teak Pole and Mundgod High Forest Working Circles and also for the Bhagwati and Mundki High Forest blocks were drawn up but no Preliminary Report appears to have been submitted for approval. From the *Sind Circle*, the Working-Plan for the Sukkar forests was submitted, but did not reach the Local Government till after the close of the year.

2.—Communications and Buildings.

[*Vide* Appendix X.]

(*a*) *Roads and Bridges.*

12. In both original work and maintenance there was a distinct advance in the year's results, the cost of the former rising from R1,51,345 to R1,96,738, and of the latter from R1,41,071 to R1,93,338. The total expenditure on communications was therefore R3,90,076 compared with R2,92,416 in the previous year, involving an increase of nearly one lakh.

In *Bengal* the expenditure on new work fell from R28,415 to R25,329, while the cost of repairs rose by R3,900 and reached R15,554. Seventy per cent. of the total outlay was incurred in Singhbhum; difficulties in procuring labour in Angul led to curtailment of a portion of the year's programme in that division.

In the *United Provinces* new work extended over 137 miles of roads and paths at a cost of R18,973 and repairs over 4,499 miles at a cost of R50,987, the total charges being R69,960 against R53,565 in the previous year.

In the *Punjab* new work cost R28,874 or about double the amount spent in the previous year. Repairs rose from the comparatively insignificant sum of R5,108 to R24,316 and the total from R19,834 to R53,190, of which R39,207 were spent in Bashahr, under the arrangement by which a sum of R25,000 is annually set aside for this purpose.

Considerable progress was also recorded in *Burma*, where R40,430 were spent on new work compared with R21,324 in the previous year. Maintenance also rose from R9,700 to R14,246.

With the five years' programmes which have been drawn up, and the co-operation which the Burma Government demands between district and forest authorities in the construction of roads, good progress should, in future, be made.

Progress in *Eastern Bengal and Assam* is but slow. The cost of original work was R14,237 compared with R9,277 in the previous year and repairs rose from R11,002 to R14,136, the total expenditure thus being higher by only about R8,000 as compared with that of the previous year. Much still remains to be performed on communications which, in view of the climate and nature of the country, will probably cost more than similar work in the majority of other provinces.

The *Central Provinces and Berar* show a slight rise in the cost of new roads, 169 miles were made at a cost of R18,132; repairs to 3,344 miles costing R19,601 against R13,497 in the previous year. The profit on the Allapilli mono-rail tramway which was recorded last year as 21·26 per cent. of its capital cost was reported during the year under review to have been nominal, due to work being greatly curtailed, sufficient timber only being extracted to keep the mills working.

In the *Andamans* work was confined to the extension of the steam tramway by about 1½ miles at a cost of R3,107, maintenance and repairs costing R5,300.

New work in *Madras* shows a considerable advance, 162 miles of roads and paths were completed for R27,612; repairs being executed over 598 miles at a cost of R31,900, the year's expenditure aggregating R59,512 compared with R47,857 in the preceding year. Tramways show, as in previous years, a profit in Nellore and a loss in Coimbatore.

In *Bombay* the cost of original work fell by over R6,000 to the small total of R18,100, repairs remaining practically stationary at R14,931. An almost similar fall was noticed last year in the cost of new work and the Bombay Government has, in reviewing the report, remarked on the inadequate expenditure incurred in the Central Circle.

(*b*) *Buildings.*

13. The total cost of building work incurred during the year was R5,23,748 or R14,233 more than in 1905-06. New work cost about R5,000 and repairs about R9,000 more than in the previous year. The marked improvement recorded in the review of 1905-06 has therefore not been maintained. In the *United Provinces*, where housing accommodation is already well provided, new work cost some R8,000 less than in 1905-06. In *Bombay* the expenditure under this head also fell from R65,545 to R28,902,—a decrease which largely serves to counterbalance the almost general increase in expenditure on building work in the majority of other provinces. The cost of maintenance of buildings was less than in the previous year in *Bengal*, the *Punjab*, *Central Provinces* and *Berar*, but was more than made good by general increases elsewhere, the chief expenditure taking place in the *United Provinces*, *Eastern Bengal and Assam*, and *Bombay*. The close relation, referred to in last year's review, between the provision of communications and buildings and the execution of silvicultural or other works in the forests must again be urged as of the greatest importance; but it is gratifying to observe that plans for the execution of these works over a period of years, so strongly recommended in previous reviews, have been introduced into a number of provinces.

(*c*) *Miscellaneous Works.*

14. The expenditure incurred on minor works such as irrigation channels, tanks, wells, the clearing and maintenance of streams, camping grounds and compounds amounted to R82,089 compared with R64,835 in the previous year. In *Bengal*, there was a fall from R6,060 to R2,159, due to less expenditure on the construction of tanks. With the exception of a slight fall in *Bombay* there was a general extension of miscellaneous work, the most noteworthy increase being in the *Central Provinces* where R31,076 were spent compared with R14,781 in the previous year or an increase of 110 per cent. A number of

tanks and a large number of wells were constructed, which are expected to prove of much benefit in improving the water-supply in grazing tracts. The co-operation of the Irrigation Department in the selection of suitable sites for the tanks and in providing a short course of training in these works to a number of Forest Rangers has gone far to achieve notable results in the *Central Provinces.*

3.—Protection of Forests.

(*a*) *General Protection.*

[*Vide* Appendices XI and XII.]

15. Breaches of forest rules, comprising offences against the forest laws, both referred to the courts and compounded, showed a slight increase, the total being 57,858 compared with 57,724 in the previous year, the former figure being 3,388 in excess of the previous triennial average. There was, in comparison with the previous year, a fall of 783 in the number of cases decided by the courts and a rise of 917 in the number of cases compounded. In *Madras* nearly a thousand cases fewer were taken into court while over twelve hundred more were compounded than in the previous year. In *Bombay*, the figures remained almost unaltered, while in other provinces small variations took place, the number of cases in the latter being some three hundred less than in the previous year. Undetected offences connected with unauthorized felling and misappropriation of forest produce rose by 231, but this increase was counterbalanced by a general decrease in other directions, the year's total of undetected cases showing only a rise of 23 in a total of 7,311 breaches of the rules.

16. The different classes of forest offences of the year under review, including undetected cases, compare as follows with the previous triennial average:—

	Average 1903-04 to 1905-06.	In 1906-07.
Injury by fire	4,432	4,138
Unauthorized felling and removal of forest produce	32,352	33,296
Unauthorized grazing	22,728	24,809
Other offences	4,378	5,213
Total	63,890	67,456

While it is satisfactory to remark from the above figures that cases of injury by fire show some decrease, other offences show an increase, referable probably to a variety of local influences of which scarcity is generally the most powerful.

(*b*) *Protection from Fire.*

[*Vide* Appendix XIII.]

17. Fire protection was attempted over 44,443 square miles, or 4,370 square miles more than in the previous year. The percentages of area successfully protected were 94·2 and 93·5, respectively, so that the season appears to have been slightly more favourable. The highest percentage of failure to area protected was 13·8 in Bombay; Madras showed 7·2, while in the rest of India, the figures fell to 2·6 and appear to be the lowest so far recorded. At this stage of Forestry in India few will be found who will attempt to controvert the statement that no efficient protection and exploitation of the State Forests is possible without the co-operation of the inhabitants of the country, or that such co-operation can be induced without insistence on a liberal but fixed policy by Government and its sympathetic application by Forest Officers.

The reasons for theft and cattle trespass may be various—necessity in times of scarcity for which timely provision may not have been made, the laxity of the protective establishment offering irresistible temptation to the poorer classes, concessions to the population resident in the neighbourhood of the reserves, insufficient to convince them of the value of the reserves, and attempts to distribute the forest yield amongst a large population who have no direct interest in the maintenance of State reserves to the loss of those resident in the vicinity thereof. Such are some of the numerous causes leading up to a temporary or permanent increase in forest offences. But an increase in, or maintenance of, a high percentage of failures to protect the forests from fire may safely be held to prove discontent, legitimate or otherwise, resulting in the absence of co-operation with the forest officials; for to burn the forests is a form of remonstrance most easily adopted and most difficult to punish because it may be presented as an apparent accident and emphasized by omission to afford the necessary assistance. The reasons for failure of protective measures against forest fires deserve the most careful study, and it is only in the very rare cases which may occur of an organized opposition to a liberal forest policy that sternly repressive measures will have a satisfactory result.

18. The following tabular statement compares the results of the year under review with those of the previous quinquennial average :—

Province.	Area in square mile.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area protected.	
	Attempted	Protected.		Average of past five years to 1905-06.	1906-07.
Bengal	1,879	1,872	44	3·1	·37
United Provinces . . .	3,203	3,168	78	2·0	1·09
Punjab	918	914	50	1·8	0·43
Burma	8,153	7,782	38	10·9	4·5
Eastern Bengal and Assam .	1,981	1,968	31·6	1·2	0·6
Central Provinces including Berar.	10,660	10,381	48	3·5	2·6
Coorg	208	208	43	1·0	0·0
North-West Frontier Province.	85	83	35	5·9	0·0
Ajmer	142	142 (*a*)	100	1·1	0·04
Total Bengal . . .	27,226	26,518	44(*b*)	5·1	2·6(*b*)
„ Madras . . .	7,357	6,825	39·6	6·1	7·2
„ ombay . . .	9,860	8,495	71·9	13·2	13·8
Grand Total 1906-07 .	44,443	41,839	47·2	7·5	5·8
Grand Total 1905-06 .	40,073	37,458	43·3	7·3	6·5

(*a*) Only 42 acres were burnt in Ajmer.
(*b*) The corresponding figures for 1905-06 were respectively 39 and 5·7, not 48·1 and 3·46 as shown in the Review for that year.

19. While there can be no doubt of the value of fire conservancy in the drier parts of the country, it was remarked last year in this Review that in many evergreen forests, some relaxation of the measures hitherto undertaken might be justified in the future. The subject has continued to receive attention, particularly in the moister parts of Burma, Bengal and Assam, where experiments have been commenced to test the effects of relaxing fire protection in small areas and the results compared with the adjoining fire protected forests. It will be some years before conclusive results can be obtained. The subject will again be dealt with under Silviculture.

20. Statistics of fires, classified according to their origin, are given in Appendix XIII. Four thousand three hundred ninety-two fires were reported, covering an area of 2,581 square miles, against 4,892 fires covering 3,498 square miles in the previous year. The fires attributed to preventible causes were fewer than in 1905-06, those due to carelessness of outsiders or to unknown causes increased by nearly a thousand and the area burnt by over 500 square miles, while fires proved to have originated from intention or malice fell in number by over 1,400 and the area overrun by 1,086 square miles. The increase in the number of fires attributed to carelessness or unknown causes is almost wholly in Bombay, where the number of this class reached the high total of 2,384 or 1,279 more than in the previous year. In the number of fires proved to be due to malice the decrease is also almost entirely in that Presidency.

(*c*) *Protection from Cattle.*

[*Vide* Appendices XIV and XV.]

21. Thirty-nine thousand six hundred and nine square miles or 16·4 per cent. of the total forest area was closed to all animals and 19,559 square miles or 8·1 per cent. was closed to browsers only. The area open to grazing is therefore very large but the intensity of grazing varies greatly in different provinces. In the Punjab only 1,416 square miles out of a forest area of 9,329 square miles are closed against all cattle. In the Central Provinces more than half the area is closed while the intensity of grazing is high, reaching one head of cattle per 2·8 acres in the case of non-browsers and one head per 7 acres for browsers. The danger to the forests is realized and the Local Administration proposes to associate Revenue officers more closely with Forest officers in the preparation of Working-Plans in future, with a view to meet pastoral requirements.

The total number of cattle including camels, buffaloes, cows, goats and sheep which obtained pasture in Government forests amounted to over $13\frac{3}{4}$ millions, of which over 8 millions paid full rates, $2\frac{1}{2}$ millions paid privileged rates, $2\frac{1}{5}$ millions were admitted by right under settlement, and less than a million during the pleasure of Government or otherwise than under settlement. There was a decrease in the number of cattle impounded, the total reaching 517,116 against 541,626 in 1905-06 which is also 16,983 less than the average of the past three years. In Madras and Bombay the reductions were of about 26,000 and 10,000, respectively, while the total of the rest of India rose by about 12,000.

(*d*) *Protection against injury from natural causes.*

22. These comprise climatic phenomena such as frost, snow and drought and vegetable and animal enemies such as climbers, fungi, insects, etc. It is

satisfactory to record that the severe frosts which caused so much injury in 1905 have not so far recurred and that the forest growth is slowly recovering from their effect.

In *Bengal* climbers were cut over 16,502 acres at a cost of 1·25 annas per acre, against 16,110 acres at 1·2 annas per acre in the previous year. This work is generally well in hand although it is stated that the cutting of small creepers which arrest young growth is not as yet efficiently performed. Wild elephants continued to cause damage to the Mal plantations of the Tista Division.

In the *United Provinces* a heavy fall of snow accompanied by rain, in March, caused considerable injury to young Deodar in Jaunsar. In Naini Tal Division monkeys were noticed to be partial to the young Chir seedlings during the winter months. Climber cutting was carried out extensively in accordance with the prescriptions of Working-Plans, the area worked over in the Eastern Circle extended to 40,854 acres at a cost of 11·5 pies per acre.

Locusts did considerable damage in the Rawalpindi, Jhelum, Chenab, Shahpur and Chenab Divisions of the *Punjab*. In Rawalpindi the *Pinus excelsa* has been noticed to die off in a very sudden manner. The cause is as yet not established but four insects which may be responsible are under observation. In Kulu and Bashahr a fungus is reported to be killing Deodar, while *Trametes Pini* is said to be spreading in the Simla hills. Defoliators also attacked Mulberry and Sissu in the Changa Manga plantation.

In *Eastern Bengal and Assam* climber cutting extended over 55,764 acres of Sál at a cost of R13,130 or about 3 annas 9 pies per acre. In Sibsagar nahor(*Mesua ferrea*) was freed from climbers over 11 square miles at a cost of R522 and in Lakhimpur over 235 acres for R387. This important operation is comparatively costly in the moist climate of this province as much of the work appears to have been done for the first time.

Extensive climber cutting was also undertaken in *Burma*. The figures for the Tenasserim Circle are not clearly stated but in the rest of the province 197,799 acres were worked over at a cost of R35,652. The bee-hole borer (*Duomitus ceramicus*) was reported to be common in some of the older Teak plantations in Toungoo and was noticed in the Teak plantations of the Shwegyin and West Salween Divisions. Fungus diseases are also reported from the taungya plantations of the Katha Division and from parts of the Upper Chindwin Division.

No special measures were undertaken in the *Central Provinces* to protect the forests against injury from natural causes. Care has, however, been taken to prevent undue opening of the canopy in frost localities, and the cutting back of teak damaged by frost and drought in previous years has been continued in all circles. Beneficial results have attended the thinnings in Babul woods in *Berar* with a view to arrest the spread of fungus (*Fomes Pappianus*).

In *Coorg* operations to arrest the spread of spike disease towards the north of the Division continued successful. But the disease appears to be still prevalent as 32,796 diseased trees were removed against 26,565 last year. The cost of these operations was R1,144. The campaign against lantana was continued, 1,211 acres being cleared at a cost of R3,757.

In *Ajmer* swarms of locusts did considerable damage to the tree growth and also injuriously affected the grass crop.

In the *Andamans* damage by the padouk weevil is reported to continue, especially in the wet months. New shoots are attacked and repeated injury causes the young tree to assume a bushy appearance.

Injuries from natural causes appear to be serious in *Madras*. The spike disease of sandal wood is reported to be spreading in North Coimbatore, while fungus and insect pests have become a serious menace to the numerous plantations. A fungus (*Trichosporium vesiculosum*) continued to attack casuarina plantations in Ganjam, Kistna, Guntur, Nellore and South Arcot, while insects are reported to be causing injury in many parts of the Presidency. Extensive clearances of affected trees and the destruction of insects were undertaken to arrest injury.

The principal operation undertaken in *Bombay* was that of climber cutting but the area worked over is not clearly indicated nor is it evident whether there is a concerted plan of action against these noxious plants. Lantana is reported to be spreading in felled coupes in Dharwar and Belgaum, while 'Sar' grass is also reported as tending to stifle Babul seedlings in the Sind Circle. The system of clear fellings there in vogue is liable to aggravate this source of injury.

23. A perusal of the foregoing extracts from Provincial reports proves that this subject is one of vital importance to the future welfare of the Indian forests. The study of insect pests has fortunately reached a point where

preventive or remedial measures can usually be indicated, although, in some cases, these are of a very drastic nature and difficult or costly of application. In the matter of climbers and noxious weeds, such as lantana, the remedy lies in extirpation, though here too the cost is often heavy, while damage from other growth can often be overcome by adopting a suitable silvicultural treatment. As regards fungi and insects, these are usually more difficult to combat, particularly in plantations where conditions are most suitable for the development of a serious pest or disease. It is becoming an interesting question whether silvicultural treatment in India in the present does not often tend to the formation of too pure a crop of the most valuable species. Experience seems to show that any serious interference with the composition of the natural forest favours the development of insect and fungus attacks and it is therefore a matter for consideration whether, in future, mixed woods should not be more largely cultivated, not only because of their greater capacity for resisting attacks from natural enemies but in order to prevent the deleterious toxic effect on the soil which appears to result from the too prolonged cultivation of the same species. The economic aspect of the case is also important for the value of soft woods may become, as they have already done in Europe, of special importance in the development of local industries and manufactures, so that it is impossible to continue to assume that the potential value of the forests depends solely on the supply of timbers of the highest present value for construction, as now appears to be generally the case in India.

4.—Silviculture.

(*a*)—*Natural Reproduction.*

24. This subject is generally dealt with in detail in the different reports. The effect of fire protection on reproduction is continuing to receive attention in those parts where climatic influences have produced conditions adverse to the propagation of the most valuable kinds. In the moist Sál forests of *Bengal*, the Conservator maintains that there is no reason to believe that fire could anywhere be used as a cheap and effective agent for improving the reproduction of Sál. Experiments undertaken during the last year or two tend to prove that, in existing conditions, Sál seedlings establish themselves and live for a time under the inferior growth and that the Sál can be assisted to develop by oft-repeated cleanings and weedings. No practical method has, however, been devised of dealing with bamboos which form the principal obstacle in the hill Sál areas. In the most fertile portions of other divisions which enjoy a comparatively dry climate, conditions are noticed, after years of fire protection, to approximate to those which have been alluded to above, and in such areas the matter is beginning to receive the necessary attention. *Sundri* is reported to be spreading in the Sundarbans but the valuable trees of the medium and lower elevations of the Darjeeling hills do not appear to reproduce themselves as satisfactorily as might be wished. Coppice reproduction is generally satisfactory.

25. In the *United Provinces* Sál reproduction, aided by two good seed years, was generally reported as satisfactory while climatic conditions were also favourable to the development of the seedlings. In the Eastern Circle the effects of grazing, aggravated by frost, served to arrest the spread of Sál to some extent. On the upper limit of its habitat the Sál is noticed to be giving way, under successful fire protection, to *Pinus longifolia*. Deodar reproduc-

tion is said to be plentiful in Jaunsar but the regeneration of oaks on the higher hills of the Naini Tal Division is not satisfactory, and cultural operations will probably be required to assist that species. In district forests heavy grazing and fires are the chief sources of injury, and it is only where these evils can be mitigated that success is attained.

In the *Punjab* efforts to improve the reproduction of Deodar by removing the layer of undecomposed vegetable matter and exposing the soil, were generally attended with success in Bashahr and to some extent in Chamba. The natural reproduction of the Deodar and Firs is, however, not yet fully understood, and very contradictory results are achieved. In many forests the heavy grazing of goats and sheep renders reproduction impossible.

26. To confirm the view already expressed that prolonged fire protection in the moist parts of *Burma* was arresting the reproduction of Teak, countings were undertaken in sample plots in Tharrawaddy that tended to support this opinion. Protection will therefore be abandoned tentatively in specified areas and the results carefully watched. There is apparently no question of the value of fire protection in the drier parts of the country. The extensive flowering of *tinwa* (*Cephalostachyum pergracile*) has not, however, resulted in the general assistance to natural regeneration of teak which appears to have been anticipated. Reproduction of padouk is stated to be generally unsatisfactory.

In *Eastern Bengal and Assam* the conditions which have been referred to regarding the moist Sál tracts of Bengal are intensified and endeavours are being made to ascertain, by experiment, the effect on reproduction of the use of fire over sample areas. It appears however that the moist forests which have been successfully protected for a long term of years do not readily burn and this difficulty seems to be affecting the course of the experiments. In Cachar and Chittagong the reproduction of some of the most valuable kinds is noticed to be unsatisfactory, owing to the paucity of seed bearers, a probable consequence of unregulated working.

In the *Central Provinces*, climatic conditions were, as a rule, favourable to natural reproduction. The latter is, however, stated to be generally unsatisfactory in Berar. Heavy grazing and insufficient soil moisture are stated to be the chief preventing agencies.

It is difficult to extract any salient features from the mass of information contained in the *Madras* report, but regeneration both by seeds and coppice appears to have been generally satisfactory, conditions of climate and freedom from fire assisting largely in the success attained.

27. The impression created by a perusal of the *Bombay* reports is that wherever fire protection, "*rab*" cutting, and cattle trespass can be controlled the forests reproduce themselves. The season was remarkable for an almost total absence of Teak seed in the Southern Circle, the reason for which is not clear. In Sind a favourable inundation of the Babul forests is expected to result in a plentiful supply of seedlings.

(*b*)—*Artificial Reproduction.*

[*Vide* Appendix XVI.]

28. The area of plantations, including taungyas, fell from 136,528 to 134,785 acres. There was an increase of over 2,000 acres in *Burma* but this was more than counterbalanced by decreases in *Bengal*, the *Central Provinces*,

Madras and *Bombay*. Seven thousand and nineteen acres of failures, 6,286 of which were sown with Burma teak seed, were struck off in the Southern Circle of the *Central Provinces*. Similarly in the Central Circle of *Bombay*, 3,125 acres of failures were abandoned.

The total expenditure on plantations fell from ₹2,40,606 to ₹2,31,036. It appears to be a sound policy to curtail expenditure on plantations if it is felt that the time and money allotted to their formation and maintenance is more advantageously spent on cultural operations and works tending to improve the growing stock in natural forests, and, as already explained, the dangers to which pure plantations are exposed from insects and fungus pests are also of importance in determining the present policy.

29. *Cultural operations* which comprise any works of artificial regeneration not amounting to regular plantations such as the introduction of valuable species, the filling up of blanks, etc., were undertaken in most provinces.

In *Bengal* 296 acres were dealt with in the Darjeeling and 194 acres in the Tista Divisions. In Puri a small area was sown with Teak and Cassia Siamea.

In the *United Provinces* the most extensive operations were undertaken in Jaunsar, where an area of 451 acres was sown or planted with Deodar. Similar work was undertaken in Naini Tal over 149 acres of newly acquired land and blanks, but much useful work was also done by Forest Guards and fire watchers in removing cover over suppressed seedlings in the coupes of the year. In the Eastern Circle a commencement has been made in sowing *Shorea robusta*, *Acacia Catechu*, *Bombax malabaricum*, *Acacia Arabica* and *Catalpa speciosa* in blank or poorly stocked areas with a view to their reboisement. It is anticipated that 1,000 acres yearly may ultimately be dealt with at a cost not much exceeding ₹3 per acre.

In the *Punjab* work was centered mainly in Bashahr and Changa Manga. In the former extensive sowing and transplanting of established plants from sown lines was undertaken and helps to reduce the cost of these operations. In Changa Manga there were many failures the cause of which is unexplained ; this matter is, however, to receive more attention in future.

Extensive operations are in progress in *Burma* to dibble in Teak seed in areas where Bamboo has recently flowered. The results achieved in the Prome and Katha divisions generally prove that the dibbling in of Teak seed is far less successful than the introduction of transplants.

In the *Central Provinces* the experimental cultural operations by the agri-silvicultural method were continued in the Berar Circle. Blanks in mixed forests were resown to an extent of 2,574 acres and sowings in *Babul* woods, after clear felling, were carried out over 556 acres. The total cost of these operations was ₹2,836. No very marked success appears to have so far been attained except as regards the regeneration sowings of *Babul* woods in a few localities.

In *Eastern Bengal and Assam* the most interesting feature is an attempt made to introduce *Ficus elastica* into the Lushai Hills through the agency of the chiefs and village communities. This should prove a valuable industry to the villagers in inaccessible parts, rubber affording a suitable crop owing to the ease of transport and its value.

Operations appear to have been extensively undertaken in *Madras* in practically all districts with varying success. The work was mostly in the direction of introducing valuable kinds and extended over 4,727 acres at a total cost of ₹15,632 of which ₹4,815 was incurred on creation and ₹10,817 on up-keep.

Similar operations in *Bombay* extended over 44,340 acres, the cost of creation amounting to ₹5,927 and of up-keep to ₹2,773. As in other parts, the results were not always successful but on the whole the progress made is encouraging.

30. The expenditure incurred on cultural operations in the different provinces was :—

	₹
Bengal	5,691
United Provinces	4,799
Punjab	7,579
Burma	17,275
Eastern Bengal and Assam	171
Central Provinces	2,572
Coorg	459
Carried over	38,544

	R
Brought forward .	38,544
North-West Frontier	60
Ajmer	2
Baluchistan	14
Andamans	...
TOTAL	38,620
Madras	15,632
Bombay	8,700
GRAND TOTAL	62,952

(c)—Operations for the improvement of the Growing Stock.

31. These comprise weeding, cleaning and thinning necessary to establish and assist the growth of all wooded crops and, in addition, improvement fellings and girdlings which are at present of special value in India in preparing the irregular and too-often ruined forests for the introduction of a permanent silvicultural system. The value of the latter consists in their effect on the crop of the future and their expediency may not therefore be determined solely by questions of demand, for the material removed is usually of small value, while the benefit to the growing stock and future yield is out of all proportion to the loss of possible revenue involved when the material remains unutilized.

The following is a brief abstract of the work undertaken in different provinces :—

In *Bengal*, cleanings which include the cutting, lopping or girdling of inferior kinds and the removal of shrubs or undergrowth to uncover young growth of valuable trees were carried out over 9,641 acres at a cost of R2,086.

In the *United Provinces*, the work which is generally carried out under the prescriptions of Working-Plans was with few exceptions accomplished. In Jaunsar, opportunity was taken of the flowering of *Strobilanthes* to eradicate the shrub by uprooting it before the seed ripened. One thousand one hundred and ninety-eight acres were thus worked over at a cost of R728 and the result will be watched with interest.

In the *Punjab*, improvement fellings to benefit Deodar extended over 1,567 acres in Bashahr and over 474 acres in Kulu. Clearing of undergrowth and thinnings was also carried out to some extent ; but the total expenditure of only R3,338 appears to indicate that much was not accomplished during the year.

The principal operation undertaken in *Burma* consisted of improvement fellings which extended over 73,400 acres at a cost of R17,485. The work fell short of the prescriptions of Working-Plans, while the manner of its execution in some divisions seems to justify some doubt as to its effectiveness.

In *Eastern Bengal and Assam*, improvement fellings and cleanings were made over 6,986 acres in Buxa at a cost of R1,144. In Goalpara 4,971 acres were marked over for improvement fellings but the work actually done is not stated.

It is not an easy matter to ascertain from the reports the area worked over under improvement fellings in the *Central Provinces*. A sum of R12,856 was spent on this work which, however, is clearly insufficient. The Administration endorses the opinion of the Inspector General of Forests in regard to the urgent need for properly conducted improvement fellings, and remarks that urgent silvicultural operations should not be neglected even when involving the removal of unsaleable material.

Natural padouk seedlings were freed from overhead cover in the *Andamans*. The presence of these in considerable numbers in the second growth forest resulting from fuel fellings indicates an alternation of species and offers a probable solution of the hitherto doubtful method of natural regeneration of padouk.

In *Madras*, progress in the abolition of the permit system and the restriction of fellings to specified areas are important factors in the treatment of the forests, but the area over which the change of system extended and its cost are not generally stated in the report.

In *Bombay* work was not extensive; the principal operations were those undertaken to assist Teak in North Kanara and Surat.

(*d*)—*Experiments.*

32. The experimental burning of grass in the Sambalpur Division of *Bengal*, inaugurated last year, has been discontinued as the staff is as yet insufficiently organised to carry out the experiment in the manner required, and evidence of the immediate effects can be ascertained from fire lines.

Experiments were undertaken in the *United Provinces* to determine suitable species (1) to grow on the many acres of bare hillsides facing south and on which few indigenous species thrive, and (2) of quick growing kinds to supplement the fuel supplies of hill stations. The Hardy Catalpa has been found most suitable for the former purpose but it thrives best at the lower elevations. For the latter *Acacia dealbata* was found to succeed on sandy loams at 5,000 feet elevation with a north or north-eastern aspect. Eucalyptus globulus is also being tried. The experiment in lac cultivation in the Siwalik Division appears to be succeeding, some areas having been leased for that purpose. The relative fertility of Sál seed from coppice and high forests was tested in Gonda and Bahraich. Results so far indicate that seed from coppice is sufficiently fertile for all practical purposes.

Experiments with Eucalyptus in the *Punjab* have been successful in Lahore, but in Simla it is believed that the climate is too cold for this tree, which is also liable to suffer from snow-break. The remedy probably lies in the selection of more suitable kinds, as certain species of Eucalyptus occur in Tasmania under conditions of climate not dissimilar to those of Simla. It is obviously useless to continue experiments with *Eucalyptus. globulus.*

33. The Mergui rubber plantation in *Burma* has proved beyond doubt the suitability of the locality for the cultivation of *Hevea Braziliensis* and endeavours are now being made to lease it. The cultivation of the camphor tree at Bhamo and Momeik has produced encouraging results.

The silvicultural experiments undertaken last year in the *Central Provinces* were continued, but as yet have not produced clear results. An inspection of the sandal plantations in North Chanda appears to show that the introduction of this tree can never be of more than experimental interest.

A large number of exotics are cultivated in *Madras*. The camphor tree (*Cinnamomum Camphora*), some Californian pines, Mahogany (*M. Swietenia*) and various rubbers appear to promise best.

In *Bombay*, somewhat extensive cultivation of the various rubbers was undertaken in all circles with varying success, with a view, no doubt, to testing the adaptability of the various kinds to local conditions.

The cultivation of rubber on a commercial scale is probably best left to private enterprise as it has been found, both in Assam and Burma, that the supervision of such rubber plantations makes unreasonable demands on the forest staff and interferes with its more legitimate work.

5.—Exploitation.

(*a*)—*System of Management.*

34. There is nothing to add to the general remarks made in paragraph 33 of last year's Review in this respect. The subject is fully entered into whenever Working-Plans are introduced. It is hoped that the application of the various silvicultural systems may be more fully dealt with in next year's Review.

(*b*)—*Agency of Exploitation.*

[*Vide* Appendix XVIII.]

(i) *Departmental Agency and* (ii) *Purchasers.*

35. There was a fall from 67¾ to 57⅘ million cubic feet in the total output of timber. E ght and three-quarter millions were removed departmentally, 45⅖ millions by purchasers, 1⅓ millions by free grantees and 2⅓ millions by right-holders. The decrease was general under all the above heads but was proportionally highest under removals by free grantees and right-holders; in the latter case the deficit was about 50 per cent. of the previous year's outturn. The outturn of fuel was 164¼ millions or 7¼ million cubic feet less than in 1905-06. Twenty and three-quarter million cubic feet were removed by Government Agency, 92¼ million cubic feet by purchasers, nearly six million cubic feet by free-grantees and 45¼ million cubic feet by right-holders. While removals by Government Agency and by purchasers rose by half a million and 4⅕ million cubic feet, respectively, there was a total fall, as in the case of timber, in fuel removed by free-grantees and right-holders of about 12 million cubic feet.

In *Bamboos* also there was a considerable fall in the total outturn which reached 181 millions against 210 millions in the previous year. Removals by Government Agency reached 7 millions, by purchasers 158¼ millions and by free-grantees and right-holders 3¼ and 12½ millions, respectively. There was an increase of about 3 millions under departmental agency, but a marked fall of over 27 millions under sales to purchasers and of over 5¼ millions by right-holders.

The outturn of minor produce, including grass and grazing can only be shown in value. The total outturn reached R65⅘ lakhs against 55 lakhs in the previous year. The value of produce extracted departmentally fell by over two lakhs, while that extracted by purchasers rose by more than three lakhs of rupees and that of right-holders also rose by over five lakhs.

A remarkable feature of this and the past year is the continued fall of outturn in timber, fuel and bamboos. It appears that the outturn rose until 1904-05, but it is not easy to assign a reason for the subsequent decrease nor why removals by free-grantees and right-holders, which are based on rough estimates, should be so much less than the amount at their disposal.

(iii) *Rights and Privileges.*

36. The different classes of produce removed from the forests in satisfaction of rights and privileges were as follows:—

Timber	2,433,669	cubic feet.
Fuel	45,316,957	do.
Bamboos	12,830,125	No.
Minor produce including grass and grazing	14,23,443	rupees.

(iv) *Free grants.*

37. These were granted in all provinces to relieve distress caused by fire, flood, etc., and for works of public utility erected by public-spirited persons. The produce so granted was as follows:—

Timber	1,325,357	cubic feet.
Fuel	5,991,867	do.
Bamboos	3,222,567	No.
Minor produce, etc.	4,05,967	rupees.

(c)—*Outturn of Forest produce.*

[*Vide* Appendix XVII.]

38. The following statement shows the total outturn of the past two years from all classes of forests under the control of the Forest Department :—

Presidency.		Timber and fuel.	Bamboos.	Minor produce.
		Cubic feet.	No.	R
Bengal	1906-7	162,390,630	135,503,416	37,19,998
	1905-6	179,761,727	164,298,466	36,15,587
Madras	1906-7	23,975,356	39,282,182	15,20,606
	1905-6	22,514,748	32,054,025	14,01,348
Bombay	1906-7	35,780,962	6,608,172	13,49,415
	1905-6	44,058,365	13,821,289	4,95,884
Grand Total	1906-7	222,146,948	181,393,770	65,90,019
	1905-6	246,334,840	210,173,780	55,12,809

As already remarked, there was a considerable decrease under timber and fuel and bamboos but a compensating increase under minor produce.

The principal decrease under timber and fuel is of 8½ million cubic feet in the Punjab, 7 million cubic feet in Burma from unclassed State forests and 8 million cubic feet in Bombay. The decrease in the Punjab is due to a reduced demand from purchasers and the cessation of earthquake relief grants. In Burma the fall is general in all circles and is attributable to the exhaustion of accessible forests. The fall in the outturn from the Bombay forests cannot be accounted for from the circle reports. In the majority of other Provinces there was a small net increase.

The decrease in the number of bamboos extracted exceeded 28¾ millions. The principal decreases were of 21 millions in Eastern Bengal and Assam, of 15 millions in Burma and 7 millions in Bombay; but there were compensating increases in other Provinces for which Madras (7 millions) and the Central Provinces (3 millions) are mainly responsible. The reasons for the large falls above noted cannot be ascertained from the circle reports.

The substantial increase in the value of minor produce is almost wholly covered by the increase in Bombay, the value of whose outturn rose from R4,95,884 to R13,49,415, which is apparently due to increased sales of myrabolams and lac in that Presidency.

CHAPTER III.

FINANCIAL RESULTS.

[*Vide* Appendices XIX to XXIII.]

39. A comparison of the gross Revenue, Expenditure, Surplus and the proportion of Expenditure to gross Revenue of the last 34 financial years is shown in the following table :—

Quinquennial periods.	Gross Revenue. (Average.)	Expenditure. (Average.)	Surplus. (Average.)	Proportion of Expenditure to Gross Revenue.
	R	R	R	Per cent.
1873-74 to 1877-78 . .	67,23,191	44,76,303	22,46,888	66
1878-79 to 1882-83 . .	79,15,956	52,09,538	27,06,418	66
1883-84 to 1887-88 . .	1,10,59,434	71,42,382	39,17,052	64
1888-89 to 1892-93 . .	1,51,86,115	82,61,176	69,24,939	55
1893-94 to 1897-98 . .	1,74,50,655	96,57,496	77,93,159	55
1898-99 to 1902-03 . .	1,90,22,776	1,08,42,872	81,79,904	57
1903-04 . . .	2,22,16,747	1,21,66,993	1,00,49,754	55
1904-05 . . .	2,40,29,950	1,29,67,856	1,10,62,094	54
1905-06 . . .	2,66,74,593	1,42,58,521	1,24,16,072	53
1906-07 . . .	2,64,91,486	1,40,63,800	1,24,27,686	53

Although the gross revenue is less than that of the previous year by R1,83,107 the expenditure is also less by R1,94,721 so that the surplus is better by R11,614. It might be expected from the decrease in outturn referred to in Chapter II that there should be some fall in the gross receipts but the decrease in timber, fuel, and bamboos appears to be almost compensated by the increased value of the minor produce disposed of; for while the outturn of timber and fuel fell by 9 per cent. and that of bamboos by 13 per cent. there was a rise of 15 per cent. in the revenue derived from minor produce, and the fall in gross revenue amounted therefore to ·68 per cent. only.

The most marked decreases in gross receipts occurred in *Bengal* ($\frac{1}{2}$ lakh), *Punjab* ($1\frac{3}{4}$ lakhs), *Burma* (5 lakhs), *Central Provinces* ($\frac{1}{2}$ lakh) and *Bombay* ($\frac{3}{5}$ lakh) while all other provinces showed better gross returns. The fall in revenue in the Punjab is due to a reduced demand, during a period of scarcity, both for standing timber and fuel and for material collected in depôts. The deficit in Burma is covered by a corresponding increase in the value of stocks.

The increase in net revenue is due to a smaller expenditure : the principal decreases under the latter head occurred in the *United Provinces* (1 lakh), *Punjab* ($1\frac{1}{5}$ lakhs), *Burma* ($2\frac{3}{4}$ lakhs), and *Bombay* ($1\frac{1}{3}$ lakhs), they appear to be almost wholly due to a fall in the expenditure on departmental timber works—consequent on the application of the policy of leaving the exploitation of the forests to private enterprise. It has been shown in Chapter II that works of improvement are generally receiving the necessary attention; so the

value of the forests is clearly increasing, and when these have been further opened up, when the areas which have received protection and careful treatment for many years are fully utilized, and when new sources of income are tapped, the financial results will continue to improve as the quantity, quality and value of the outturn rises.

40. The net revenue per square mile of land under the control of the Department varies enormously in the different provinces: it is dependent on the proportion of revenue producing area and on the proportion of area utilized in the satisfaction of the rights and privileges of the people, as well as on the intensity of working justified by sound management. The highest net return per square mile was R383 in the North-West Frontier Province, the United Provinces and Coorg yielding R287 and R263, respectively. The lowest returns were of R21 in Eastern Bengal and Assam and of R11 in Ajmer. The average for all provinces was R52 per square mile against R50 in 1905-06 and R47 in 1904-05. These figures seem to support the view taken of the increasing value of the State forests.

The above calculations omit the value of forest produce given away free or at reduced rates. The estimated value of such concessions amounted during the year to R34 lakhs and represents a portion of the direct value of the forests to the country, apart from the contribution of about $1\frac{1}{4}$ crores to the State revenues.

41. The financial results of the working of the forests after deducting capital expenditure not yielding an immediate return is as follows:—

	R	R
Gross Revenue		2,64,91,486
Value of produce granted free or at reduced rates		34,05,432
Total value of yield		2,98,96,918
Gross Expenditure	1,40,63,800	
Deduct expenditure not yielding an immediate return:—		
(*a*) Roads and Buildings	9,83,944	
(*b*) Cultural operations	5,59,001	
(*c*) Working-Plans	90,513	
(*d*) Settlements	78,116	
(*e*) Surveys	2,97,964	
(*f*) Demarcation	1,09,573	
TOTAL	21,19,111	
Balance of direct revenue producing expenditure		1,19,44,689
Surplus of revenue over expenditure directly chargeable to revenue		1,79,52,229

CHAPTER IV.

GENERAL.

1.—ADMINISTRATION.

42. The post of Inspector General of Forests was held by Mr. S. Eardley-Wilmot until 17th April 1907, when he availed himself of three months' privilege leave, the vacancy being filled by Mr. J. H. Lace, Conservator of Forests, 1st grade. Eight Conservators were on leave during a portion or the whole of the year.

In view of the rapid development of the forests in Burma, the ultimate strength of the Controlling staff in that province was raised during the year from 39 Imperial and 31 Provincial Service officers to 56 Imperial and 60 Provincial officers respectively.

A notable event of the year was the re-organisation of the Imperial Forest Service with regard to the emoluments of Deputy and Assistant Conservators. Grade promotion was replaced by a system of personal pay dependent on the length of service, the individual officer rising from ₹380 to ₹1,250 per mensem in the 20th year of service, but officiating and exchange compensation allowances were abolished for these officers.

Four officers of the Imperial and three of the Provincial service retired, one officer of the Imperial service resigned and one of the Provincial service died during the year.

Officers on Foreign Service.

43. The following statement shows the number of officers on foreign service in India, in British Colonies and serving under other Governments :—

In India.

Imperial Service.	*Provincial Service.*
1. Mr. A. W. Blunt (Central Provinces), Kashmir.	1. Lala Daulat Ram (Punjab), Kashmir.
2. „ R. M. Williamson* (Central Provinces), Central India.	2. Mr. Keshva Nand (United Provinces), Kashmir.
	3. Rai Bahadur M. Muttanah (Madras), Mysore.
	4. Mr. G. W. Thompson (Madras), Jeypore.
	5. „ V. Alwar Chetty (Madras), Cochin.
	6. „ Inamati Sham Rao (Central Provinces), Mysore.
	7. „ A. P. Mudaliar (Bengal), Mysore.
	8. Bhagwandas Harkisandas Dala (Bombay), Rajpipla.
	9. Pandit Thakur Das (Punjab), Indore State.
	10. Mr. J. M. Blanchfield (United Provinces), Bundelkand State.
	11. Lala Devi Ditta (Punjab), Jubal State.

In the Colonies.

.....	1. Mr. N. C. McLeod (Central Provinces), South Nigeria.

Under other Governments.

1. Mr. W. F. Lloyd (Bengal), Siam	1. Mr. S A. Wood (Burma), Soudan.

* Mr. Williamson's deputation to Central India terminated on 19th November 1906; he has since been deputed to Rewah State for a period of three years from 25th October 1907.

2.—Exports of Forest Produce.

[*Vide* Appendix XXIV.]

44. The total value of exports of forest products at ports of shipment amounted in the year under review to 496½ lakhs of rupees as against 469 lakhs in 1905-06 and an average of 402 lakhs for the three preceding years. There has been a general falling off in the quantity of articles exported, the increase in value being chiefly due to the better prices realised.

The quantity of caoutchouc exported fell from 279 tons in 1905-06 to 224 tons in 1906-07. The out-put however still compares favourably with the average of 168 tons for the 5 years ending 1905-06. The value of this product rose at the same time from R4,595 per ton to R4,993.

Thirteen thousand four hundred and sixty-four tons of lac were exported during the year or 259 tons less than in the previous year, but the total value of this article rose from 318 lakhs to 350 lakhs, button and shell lac having risen in value by 13 per cent. and 16 per cent. respectively. The demand for this article appears to be limited only by its supply and this again only by the area suitable for its cultivation. In the Central Provinces the development of this industry by departmental agency has been somewhat hampered by existing leases and contracts. In Sind the propagation of lac has for some time been fostered departmentally, with the result that the lac-bearing area has rapidly extended and the industry has already proved a profitable source of revenue to the State.

The quantity of teak exported fell from 52,768 tons in 1905-06 to 44,202 tons in 1906-07. The price however improved slightly during the year. Four hundred tons of selected teak squares were supplied direct to the Admiralty under tentative arrangements made with the Lords Commissioners.

3.—Recruitment and Technical Education.

45. Eight officers who had completed their training at Cooper's Hill College were appointed Assistant Conservators of Forests and arrived in India at the end of 1906. Three of these were posted to Burma, two each to Bengal and Bombay and one to Eastern Bengal and Assam. Dr. Noshirvan Gustasp, Ph.D., an Extra-Assistant Conservator of Forests serving in the Bombay Presidency, was appointed to the Imperial Forest Service as a special case and posted to that Presidency.

Nineteen candidates were selected in England by the Secretary of State for training at Oxford for the Indian Forest Service.

46. Mr. Lace held the post of Principal of the College and Imperial Silviculturist until 17th April 1907, when he was appointed to officiate as Inspector General of Forests, and Mr. H. H. Haines took over charge of the post of Principal in addition to his duties as Forest Botanist. Mr. R. S. Hole succeeded Mr. Haines as Botanist from 28th May 1907 and Mr. C. E. C. Fischer temporarily held the post of Imperial Forest Zoologist during the absence of Mr. E. P. Stebbing, on leave. Mr. Puran Singh was appointed acting Imperial Forest Chemist.

47. The number of candidates who presented themselves for the entrance examination of the Imperial Forest College in 1906 was 103, or 20 more than the previous year. Out of 44 who qualified for admission, 36 joined the College in April 1907, besides eight students, including four from Nepal, who were

specially exempted from passing the entrance examination. One stipendiary student from Sind and another from the Nepal State left the College before the rains term, thus reducing the number to 42 at the close of the year. At the final examination held in March 1907, Higher Standard certificates were awarded to 23 candidates and Lower Standard certificates to 8. Since the Dehra Dun Forest School was founded in 1878, Higher Standard certificates have been granted to 600 students and Lower Standard certificates to 174. Owing to the reconstitution of the School into a College and the abolition of the Lower Vernacular Class, this was the last occasion on which certificates were issued under the old rules.

48. The duty of training subordinate officers below the rank of Ranger has now devolved on Local Governments and steps were taken in most provinces where there were no local Forest Schools to establish suitable institutions for the instruction of Guards, Foresters and Deputy Rangers in the rudiments of practical Forestry and cognate sciences. A Vernacular Forest School was established at Balaghat in the *Central Provinces* from 1st April 1908, providing a course of instruction extending over one year and for the admission of 21 students annually.

For *Bengal* a course of instruction in Forest subjects was instituted at Kurseong under the supervision of the Divisional Forest Officer. The training is to last for six months from June to December and the number of students admitted on each occasion is not to exceed eight.

The *United Provinces* Government decided to hold a training class at Ramnagar for subordinate officers, not exceeding twelve at a time, under the supervision of the Conservator of the Western Circle and under the immediate charge of a selected officer of the Provincial Forest Service. The class is to meet about the end of October and to last for eight months, during which the students will tour through the most important forests of the two circles, and receive practical instruction from works in actual progress.

Proposals were sanctioned during the year for the reconstitution of the Vernacular Forest School in *Burma* and for its transfer to Pyinmana. The new rules provide for two courses, one in English for the award of the Higher Standard certificate and the other in Burmese for the Lower Standard. Each course is to last for two years and the School will admit a maximum number of 10 upper and 20 lower class students.

49. *Forest Research.*—Although the Imperial Forest Research Institute was only created towards the end of the previous year, and the duties of the staff are held to consist primarily in the education of the large classes of forest students at the College, very gratifying progress was made in research work and of this details are available in the Progress Report of the Imperial Forest Research Institute for 1906-07, the following remarks affording only general information on the subject.

The Principal of the College, who also held the post of *Silviculturist*, was unable to find time to devote to enquiry into silvicultural problems and the Imperial *Forest Chemist* during the first few months of his incumbency was chiefly engaged in placing the Laboratory into working order.

The Superintendent of *Working-Plans* commenced investigations into the determination of the height, diameter and volume growth of individual trees at various ages and the production of timber per unit of area. For this purpose, the collection of (1) statistics and data regarding experimental plots and

(2) of production from control forms, was undertaken and from these was compiled "*A Preliminary note on the development of the sal in volume and in money value*". Similar publications regarding *teak, Pinus longifolia, Deodar* and *Pinus excelsa* were also taken in hand. To ensure uniformity in technical terms used in the Department a "*List of Technical Terms*" was also prepared and issued after the close of the year.

The Forest *Botanist* conducted local investigations in Chota Nagpur and the Santhal Parganas with a view to completing information for the local *Flora* which are being prepared and this left little time for research in applied botany.

Steady progress was made in Forest *Zoology*. Investigations were conducted in the Himalayas into the insect pests of *Pinus longifolia, Pinus excelsa, Deodar, Silver Fir* and *Spruce*. The principal publications under preparation were (*i*) A monograph on the lac insect, (*ii*) A note on some Assam Sal insect pests and (*iii*) A Manual of Elementary Forest Zoology.

In *Forest Economics*, the chief subjects of investigation were (*i*) the supply of sleepers of *Xylia dolabriformis*, (*ii*) Utilization of *Dipterocarpus tuberculatus* for sleepers and other purposes, (*iii*) Introduction of inferior species into use for railway sleepers, (*iv*) Trials of various timbers for paving blocks, lead pencils, cricket bats, tea boxes, etc. A Manual of Forest Utilization was compiled but was not published until after the close of the year.

APPENDIX I.

[*Vide* paragraphs 1 to 3.]

Area of reserved and leased forests.

Province.	Area in square miles.				Remarks.
	At commencement of year.	Added in	Excluded in	At close of	
Bengal . . .	4,260	2	22	4,240	
United Provinces . .	(*a*)4,091	...	...	4,091	(*a*) This was shown as 4,092 square miles in previous year's report and includes 157 square miles of leased forests.
Punjab . . .	(*b*)2,357	23	(*b*)48	(*b*)2,332	(*b*) Include 535, 10 and 525 square miles of leased forests respectively.
Burma	(*c*)20,534	1,792	751	21,575	(*c*) This was shown as 20,544 in previous year's report owing to the wrong inclusion of 10 square miles of reserve.
Eastern Bengal and Assam	6,009	253	6	6,256	
Central Provinces (including Berar).	22,127	317	446	21,998	
Coorg	505	2	31	476	
North-West Frontier .	234	...	...	234	
Ajmer	142	...	...	142	
Baluchistan . . .	264	16	...	280	
Andamans . . .	156	...	...	156	
Total Bengal .	60,679	2,405	1,304	61,780	
„ Madras .	18,288	302	49	18,541	
„ Bombay .	(*d*) 13,518	234	36	(*d*) 13,716	(*d*) Includes 217 square miles of leased forests.
Grand Total, 1906-07 .	(*f*)92,485	2,941	1,389	(*e*) 94,037	(*e*) Includes 899 square miles of leased forests.
„ „ 1905-06 .	(*f*)92,179	1,986	1,669	(*f*) 92,496	(*f*) Includes 910 square miles of leased forests.

APPENDIX II.

[*Vide* paragraphs 1 to 3.]

Area of all forest lands.

Province.		Forest area in square miles.				Proportion of forests to whole area of Province.	Remarks.
Name.	Area in square miles.	Reserved.	Protected.	Unclassed State.	Total.		
Bengal . . .	115,768	4,240	2,833	...	7,073	6·1	
United Provinces .	107,043	(*a*)4,091	30	43	4,164	3·8	(*a*) Includes 157 square miles of leased forests.
Punjab . . .	97,218	(*b*)2,332	5,241	1,756	9,329	9·7	(*b*) Includes 525 square miles of leased forests.
Burma . . .	179,146	21,575	...	108,965	130,540	72·8	
Eastern Bengal and Assam.	93,771	(*c*) 6,256	5	22,956	29,217	31·1	(*c*) Includes 6 square miles of reserved forests under the management of Railway Companies or of the Revenue Department.
Central Provinces (including Berar).	100,335	21,998	...	4	22,002	21·9	
Coorg . . .	1,582	476	...	(*d*)30	506	32·0	(*d*)Temporarily transferred to reserved land for the purpose of resettlement.
North-West Frontier	13,057	234	...	...	234	1·8	
Ajmer . . .	2,646	142	...	6	148	5·6	
Baluchistan . .	9,403	280	...	...	280	2·9	
Andamans . .	3,143	156	...	1,794	1,950	62·1	
Total Bengal .	723,112	61,780	8,109	135,554	205,443	28·4	
„ Madras .	141,679	18,541	...	(*e*)1,079	19,620	13·9	(*e*) Reserved lands.
„ Bombay .	122,958	(*f*)13,716	1,359	...	15,075	12·2	(*f*) Includes 217 square miles of leased forests.
Grand Total, 1906-07	987,749	(*g*)94,037	9,468	136,633	(*g*)240,138	24·3	(*g*) Includes 899 square miles of leased forests.
„ „ 1905-06	970,617	(*h*)92,496	10,018	131,137	(*h*)233,651	24·1	(*h*) Includes 910 square miles of leased forests.

APPENDIX III.

[*Vide* Paragraph 4.]

Progress in Forest Settlements.

Province	Areas already settled at the commencement of the year.			Areas finally settled during the year						Area undergoing settlement.								
				Area.			Expenditure incurred.			At commencement of the year.			Taken in hand during the year.			Expenditure incurred during the year.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	₹	₹	₹	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	₹	₹	₹
Bengal	4,235	...	4,235	...	...	...	...	...	...	...	...	...	15	...	15	...	...	...
United Provinces	3,904	30	3,934	1	...	1	852	...	852	...	...	...	...	...	...	...	...	...
Punjab	1,938	5,168	7,106	...	74	74	...	...	...	15	205	220	70	...	70	...	—	...
Burma	20,572	...	20,572	1,030	...	1,030	2,029	...	2,029	814	...	814	2,809	...	2,809	16,639	...	16,639
Eastern Bengal and Assam	6,009	...	6,009	220	...	220	...	...	...	427	...	427	7	1	8	...	...	...
Central Provinces including Berar.	18,234	...	18,234	16	...	16	...	...	...	14	...	14	1	...	1	...	...	...
Coorg	476	...	476	...	..	...	...	...	...	...	...	...	30	...	30	983	...	(a) 983
North-West Frontier	234	...	234	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	264	...	264	16	...	16	...	...	...	...	...	...	...	...	...	...	...	...
Andamans	156	...	156	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Bengal	56,022	5,198	61,220	1,283	74	1,357	2,881	...	2,881	1,270	205	1,475	2,932	1	2,933	17,622	...	17,622
,, Madras	18,288	...	18,288	194	...	194	270	...	270	649	...	649	10	...	10	538	...	538
,, Bombay	13,213	953	14,166	197	64	261	...	...	...	35	...	35	36	...	36	(b) 6,948	...	6,948
Grand Total, 1906-07	87,523	6,151	93,674	1,674	138	1,812	3,151	...	3,151	1,954	205	2,159	2,978	1	2,979	25,108	...	25,108
,, ,, 1905-06	87,159	5,764	92,923	567	140	707	4,238	...	5,808	3,241	205	3,446	454	...	454	29,771	...	29,778

(a) Excludes ₹3,850 paid for purchase of 2 Cardamoms estates within reserves.
(b) Excludes ₹12,235 expended in other than Forest Accounts.

APPENDIX IV.

[*Vide* paragraph 5.]

Demarcation and Maintenance of Boundaries.

Province.	Circle.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
									On new work.	On repairs.
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	R	R
Bengal	.....	52	3,244	378	3,694	...	1,005	4,699	1,163	3,034
United Provinces	Eastern Circle	2	819	1,694	2,515	9	599	3,123	245	5,610
	Western „	4	523	1,617	2,144	2	784	2,930	349	2,808
	Total	6	1,342	3,311	4,659	11	1,383	6,053	594	8,418
Punjab	.....	21	2,596	8,249	10,866	3,555	1,191	15,612	(*a*)223	3,244
Burma	Pegu Circle	90	629	2,620	3,339	246	1,247	4,832	1,240	4,928
	Tenasserim „	49	1,524	1,841	3,414	55	607	4,076	525	6,390
	Northern „	101	1,144	2,403	3,648	143	251	3,942	1,836	2,164
	Southern „	189	1,183	2,470	3,842	377	447	4,666	3,880	1,668
	Total	429	4,480	9,334	14,243	721	2,552	17,516	7,481	15,150
Eastern Bengal and Assam.	.....	73	1,648	292	2,013	14	2,601	4,628	2,655	7,804
Central Provinces	Northern Circle	14	7,830	3,868	11,712	...	1,125	12,837	253	5,663
	Southern „	6	7,475	1,292	8,773	59	974	9,806	9	3,295
	Berar „	1,086	5,853	6,362	13,301	59	667	14,027	5,059	3,750
	Total	1,106	21,158	11,522	33,786	118	2,766	36,670	5,321	12,708
Coorg	.....	...	...	307	307	173	56	536	...	73
North-West Frontier	.....	...	34	743	777	...	139	916	...	707
Ajmer	.....	...	...	262	262	...	158	420	218	18
Baluchistan	.....	20	189	212	421	...	77	498	...	19
Andamans	.....	...	...	42	42	29	116	187	...	7
Total Bengal	.....	1,707	34,691	34,652	71,070	4,621	12,044	87,735	17,655	51,182
„ Madras	Northern Circle	184	2,073	7,738	9,995	160	545	10,700	7,672	3,654
	Central „	105	11,670	3,143	14,918	194	280	15,392	494	2,753
	Southern „	135	1,080	8,743	(*b*)9,958	535	846	11,339	1,718	7,960
	Total	424	14,823	19,624	34,871	889	1,671	37,431	9,884	14,367
„ Bombay	Northern Circle	13	884	4,582	5,479	796	469	6,744	194	1,771
	Central „	142	3,957	14,003	18,102	4,539	861	23,502	1,194	1,199
	Southern „	297	1,595	9,841	11,733	1,024	626	13,383	4,635	1,792
	Sindh „	28	1,649	324	2,001	...	579	2,580	...	...
	Total	480	8,085	28,750	37,315	6,359	2,535	46,209	6,023	4,762
Grand Total, 1906-07	.....	2,611	57,599	83,026	143,256	11,869	16,250	171,375	33,562	70,311
„ „ 1905-06	.....	3,319	55,317	76,705	140,852	12,385	16,456	169,693	44,482	79,967

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private and other lands within the forests, but not the limits of subdivision such as blocks, compartments and coupes.

(*a*) Excludes R68 expended in demarcating the Pir Mahal plantation.

(*b*) Excludes 23 miles of artificial boundary in Coimbatore District.

APPENDIX V.

[*Vide* paragraphs 6 to 9.]

Forest Areas Surveyed and under Survey.

Province.	2″=1 mile.		4″=1 mile.		Total of detail Survey on 2″ scale and over.		Expenditure on Surveys including mapping and publishing charges (debitable to Forests).
	Outturn.	Cost rate.	Outturn.	Cost rate.	1906-07.	Total up to date.	
1	2	3	4	5	6	7	8
	Sq. miles.	₹	Sq. miles.	₹	Sq. miles.	Sq. miles.	₹ (a)
Bengal	1,050	43	...	...	1,050	1,050	366
United Provinces of Agra and Oudh	...	...	63·5	17·3	63·5	4,138·5	4,574
Punjab	...	...	...	...	...	3,568	2,462
North-West Frontier Province	...	...	...	...	...	366	375
Burma	576	62·8	51	305·7	62·7	13,105	14,612 (a)
Central Provinces including Berar	22	41	...	...	22	18,619·5	...
Eastern Bengal and Assam	...	...	24	112·5	24	1,580	3,453
Ajmer	...	...	...	...	...	144	...
Total of Bengal	1,648	...	138·5	...	1,786·5	42,571	25,842
„ Madras	...	...	378	91·45	378	14,278 (b)	23,944
„ Bombay	...	...	62	65·8	62	11,788	13,511
Total of Madras and Bombay	...	...	440	...	440	26,066	37,455
Grand Total, 1906-07	1,648	...	578·5	...	2,226·5	68,637	(c) 63,297
„ „ 1905-06	571	...	3,036·5	...	3,607·5	(b) 68,633·5	(d) 2,72,423

(a) Cost of 2″ Survey borne by the Survey of India.
(b) Includes 126 square miles on 8″ scale.
(c) Excludes ₹32,022 for headquarter charges.
(d) „ ₹29,655. „ „ „ „

The figures shown in this statement are exclusive of charges debitable to Survey of India.

APPENDIX VI.

[*Vide* paragraphs 6 to 9.]

Details of Forest Survey operations.

Province.		Forest Surveyed.	Nature of Survey Operations. 2″ Detail Survey. Area.	2″ Detail Survey. Cost rate.	4″ Detail Survey. Area.	4″ Detail Survey. Cost rate.	Expenditure including mapping and publishing charges debitable to Forests.	Remarks.
			Sq. m.	₹	Sq. m.	₹	₹	
Bengal		Angul	...	...	...	...	366	Mapping and publishing charges.
		Sundarbans	1,050	43	...	...	... (a)	
		Total	1,050	43	...	...	366	
United Provinces of Agra and Oudh.	Western Circle.	Tehri-Garhwal	...	...	...	...	2,069	For second edition of Kumaun and Garhwal maps.
		Ganges	...	...	...	...	795	
		Naini Tal	...	...	...	...	226	
		Garhwal	...	...	...	...	382	
	Eastern Circle.	Pilibhit	...	...	62	17·3	1,019	
		Kheri	...	...	1·5		57	For second edition of Kumaun and Garhwal maps.
		Kumaun	...	...	...		26	
		Total	...	...	63·5	17·3	4,574	
Punjab		Jhelum	...	...	...	...	406	Mapping and publishing charges.
		Rawalpindi	...	...	...	...	51	
		Lahore	...	...	...	...	290	
		Shahpur	...	...	...	...	310	
		Bashahr	...	...	...	...	1,405	
		Total	...	...	...	...	2,462	
North-West Frontier Province.		Hazara	...	...	...	...	375	Mapping and publishing charges.
Burma	Northern Circle.	Katha	...	...	...	...	2,676	Mapping and publishing charges.
		Mu	125·29	54·06	...	...	1,231 (a)	Mapping and publishing charges.
	Southern Circle.	Mandalay	...	...	...	...	49	Mapping and publishing charges.
		Ruby Mines	...	...	...	...	110	
		Yaw	450·84	6,524	...	...	... (a)	
	Tenasserim Circle.	Thaungyin	...	...	51·25	305·70	10,546	
		Total	576·13	...	51·25	...	14,612	
Central Provinces.	Berar Circle	Amraoti	22	41	...	...	... (a)	
		Akola						
		Yeotmal						
		Total	22	41	...	...	...	
Eastern Bengal and Assam.		Kamrup	...	...	...	...	209	Mapping and publishing charges.
		Nowgong	...	...	...	...	223	
		Garo Hills	...	...	...	...	29	
		Darrang	...	...	...	...	...	
		Chittagong	...	...	24	112·5	2,992	
		Total	...	...	24	112·5	3,453	
Madras	Northern Circle	Ganjam	...	...	343·38	91·45	23,944	
	Southern Circle	North Coimbatore	...	...	34·25			
		Total	...	...	377·63	91·45	23,944	
Bombay	Central Circle	Khandesh	...	...	62·4	65·8	13,511	
	Forest Surveys	Headquarters	...	...	...	...	32,022	
Grand Total, 1906-07		...	1,648	...	578·78	...	95,319	
„ „ 1905-06		...	571	...	(b)3,036·5	...	3,02,078	

(a) Cost borne by the Survey of India.

(b) Includes 126 square miles on 8″ scale.

APPENDIX VII.

[*Vide* paragraphs 10 and 11.]

Areas brought under the control of sanctioned Working-Plans up to 30th June in the provinces outside the Madras and Bombay Presidencies.

Province.	Forest Area, in square miles.				Area for which Working-Plans prepared and sanctioned up to 30th June 1907.	*Proportion* of Forest area under sanctioned Working-Plans.
	Reserved.	Protected.	Unclassed State.	Total.		
Bengal	4,240	2,833	...	7,073	5,093	72
United Provinces	4,091	30	43	4,164	3,318	80
Punjab	2,332	5,241	1,756	9,329	4,145	44
Burma	21,575	...	108,965	130,540	4,208	3
Eastern Bengal and Assam . .	6,256	5	22,956	29,217	1,103	4
Central Provinces including Berar .	21,998	...	4	22,002	11,847	54
Coorg	476	...	30	506	178	35
North-West Frontier . . .	234	...	...	234	184	79
Ajmer	142	...	6	148	140	95
Baluchistan	280	...	...	280	...	...
Andamans	156	...	1,794	1,950	...	...
Grand Total in 1906-07 .	61,780	8,109	135,554	205,443	30,216	15
„ „ 1905-06 .	60,690	8,626	129,840	199,156	28,166	14

Note.—This appendix was compiled by the Superintendent of Working-Plans.

APPENDIX VIII.

[*Vide* paragraphs 10 and 11.]

Progress in Working-Plans in the provinces outside the Madras and Bombay Presidencies during the year.

Province.		Preliminary proposals submitted to the Inspector-General of Forests for Working-Plans.		Completed Plans submitted for opinion and remarks of Inspector-General of Forests.		Plans finally sanctioned by Local Governments on recommendation of the Inspector-General of Forests.	
		No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.
1		2	3	4	5	6	7
		No.	Sq. miles.	No.	Sq. miles.	No.	Sq. miles.
Bengal		...	...	...	...	3	2,810
United Provinces	Eastern Circle	...	...	...	...	...	...
	Western „	...	...	3	375	2	297
Punjab		...	...	...	...	...	...
Burma	Pegu Circle	...	...	1	133	1	133
	Tenasserim Circle	1	31	1	31	...	...
	Northern „	2	443	...	...	...	...
	Southern „	1	934	1	409	...	...
Eastern Bengal and Assam		2	164	1	3	1	3
Central Provinces	Northern Circle	...	...	...	...	...	...
	Southern „	8	1,179	...	...	...	...
	Berar „	...	...	...	...	...	...
Coorg		...	...	...	...	...	...
North-West Frontier		...	...	2	111	1	61
Ajmer		...	...	...	...	...	...
Baluchistan		...	...	...	...	...	...
Andamans		...	...	...	...	...	...
	Total	14	2,751	9	1,062	8	3,304

Note.—The figures in this statement have been obtained from the Conservators, and the appendix was compiled by the Superintendent of Working-Plans.

APPENDIX IX.

[*Vide* paragraphs 10 and 11.]

Comparative statement of progress made in Working-Plans.

Province.	Areas for which Working-Plans have been completed and sanctioned.		Areas for which Working-Plans are being compiled.		Areas for which Working-Plans have still to be taken in hand.	Total forest area, as in Form No. 51.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
1	2	3	4	5	6	7	8
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	
Bengal	(*a*)5,093	...	(*b*)229	66	1,685	7,073	
United Provinces. Eastern Circle	(*c*)1,460	...	355	...	340	2,155	
United Provinces. Western „	1,858	...	78	...	73	2,009	
Punjab	4,145	...	(*o*)*362*	...	4,822	9,329	
Burma. Pegu Circle	(*d*)1,539	133	...	...	30,116	31,788	
Burma. Tenasserim Circle	1,187	...	(*p*)*835*	31	29,605	31,658	
Burma. Northern „	(*e*)38	...	586	130	27,958	28,712	
Burma. Southern „	1,311	...	(*q*)*974*	469	35,628	38,382	
Eastern Bengal and Assam	(*f*)1,100	3	...	199	27,915	29,217	
Central Provinces. Northern Circle	(*g*)*4,120*	...	(*r*)*939*	...	(*j*)2,316	7,375	
Central Provinces. Southern „	(*h*)5,538	...	(*s*)*57*	...	(*k*)2,021	7,616	
Central Provinces. Berar „	(*i*)2,189	...	...	...	(*l*)4,822	7,011	
Coorg	178	...	...	...	328	506	
North-West Frontier Province	123	61	50	...	...	234	
Ajmer	140	...	...	...	8	148	
Baluchistan	...	...	...	...	280	280	
Andamans	...	...	(*m*)317	...	1,633	1,950	
Total Bengal	30,019	197	4,782	895	169,550	205,443	
Madras. Northern Circle	(*t*)*1,734*	574	934	119	3,479	6,840	
Madras. Central „	(*u*)*2,177*	...	(*v*)*1,670*	525	2,892	7,264	
Madras. Southern „	2,139	28	(*w*)*405*	398	2,546	5,516	
Total	6,050	602	3,009	1,042	8,917	19,620	
Bombay. Northern Circle	(*x*)*1,788*	...	(*y*)*65*	...	708	2,561	
Bombay. Central „	2,277	3	554	8	2,254	5,096	
Bombay. Southern „	(*z*)*841*	80	230	56	3,383	4,590	
Bombay. Sindh „	611	...	421	...	(*n*)40	1,089	
Total	5,517	83	1,270	64	6,385	13,336	

(*a*) Decrease by 29 square miles, as compared with the figures of 1905-06, is due to the revision of the Darjeeling and Tista Working-Plans.

(*b*) Transferred from column 5 in Form 55 of the Bengal Forest Report for 1906-07 to column 4 of the appendix with reference to Conservator's letter No. 12, dated 8th April 1908.

(*c*) Exclude 334 square miles of Forests in Bahraich Division the existing Working-Plans for which were under revision during the year and 21 square miles of forests in Gonda Division the Working-Plan for which has been sanctioned during 1907-08. These areas have therefore been shown in column 4.

(*d*) Decrease by 1 square mile, as compared with the figures of 1905-06, is due to correction of area in Zaigon Division.

(*e*) Increase by 2 square miles, as compared with the figures of 1905-06, is due to correction of area in Katha Division.

(*f*) Decrease by 1 square mile, as compared with the figures of 1905-06, is due to revision of areas in Jalpaiguri, Buxa and Garo Hills Division.

(*g*) Decrease by 955 square miles, as compared with the figures in columns 3 and 4 of Appendix IX of 1905-06, is due principally to the transfer of the Betul Division.

(*h*) Increase by 2,256 square miles, as compared with the figures of 1905-06, is due to changes in the areas of all the Divisions in this Circle.

(*i*) Increase by 581 square miles, as compared with the figures of 1905-06, is due to changes in the areas of the Circle.

(*j*) Includes 906 square miles for which Working-Plans are not required.

(*k*) Includes 1,439 square miles for which Working-Plans are not required.

(*l*) Includes 422 square miles for which Working-Plans are not required.

(*m*) A Working-Plan for this area was compiled during the year, but not yet sanctioned.

(*n*) Excludes 17 square miles: no explanation has been rendered in the Report.

(*o*) Decrease by 5 square miles, as compared with the figures of 1905-06, is due to grant of leases for purposes of cultivation in Bashahr Division.

(*p*) Decrease by 25 square miles, as compared with the figures of 1905-06, is due to correction of area in Thaungyin Division.

(*q*) Decrease by 14 square miles, as compared with the figures in columns 4 and 5 of Appendix IX of the Review for 1905-06, is due to recomputation of area in the Ruby Mines Division.

(*r*) *and* (*s*) The differences as compared with the figures of 1905-06 are due to changes in the areas of Divisions.

(*t*) Decrease by 76 square miles, as compared with the figures of 1905-06, is due to the revision of the Working-Plan for the Yerramalais range in the West Kurnool District.

(*u*) Decrease by 114 square miles, as compared with the figures of 1905-06, is due to the exclusion of 104 square miles of forests in the Nellore District and the revision of the area of forests in North Salem District.

(*v*) *and* (*w*) No explanations of the differences between the figures of 1905-06 and those of 1906-07 are forthcoming.

(*x*), (*y*) *and* (*z*) The differences between the figures for 1906-07 and those of the preceding year are due to the transfer to the Kolaba Division (418 square miles) from the Southern to the Northern Circle.

Note.—This appendix was compiled by the Superintendent of Working-Plans.

APPENDIX X.

[*Vide* paragraphs 12 to 14.]

Expenditure on Communications and Buildings.

Province.	New Work.		Repairs.		Other Work.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
	R	R	R	R	R	R
Bengal	15,713(*a*)	25,329	8,202(*b*)	15,554	2,159	66,957
United Provinces	77,390(*b*)	18,973	29,218(*b*)	50,987	11,070	1,87,638
Punjab	18,110	28,874	7,556	24,316	2,491	81,347
Burma	69,198	40,430	34,744	14,249	8,801	1,67,422
Eastern Bengal and Assam	23,677	14,237	17,603	14,136	3,746	73,399
Central Provinces (including Berar)	58,460	18,132	20,114	19,601	31,076	1,47,383
Coorg	1,100	735	1,578	1,621	116	5,150
North-West Frontier	1,862	1,067	213	545	33	3,720
Ajmer	...	105	123	198	233	659
Baluchistan	...	37	269	...	...	306
Andamans	5,602	3,107	973	5,300	...	14,982
Total, Bengal	2,71,112	1,51,026	1,20,593	1,46,507	59,725	7,48,963
„ Madras	61,529	27,612	30,056	31,900	9,071(*c*)	1,60,166
„ Bombay	28,902	18,100	11,556	14,931	13,293(*d*)	86,782
Grand Total, 1906-07	3,61,543	1,96,738	1,62,205	1,93,338	82,089	9,95,911
„ „ 1905-06	3,56,536	1,51,345	1,52,979	1,41,071	64,835	8,66,766

(*a*) Excludes R1,007 on account of unapportioned temporary establishment employed.
(*b*) Excludes R2,586 ditto ditto ditto.
(*c*) The cost of miscellaneous works is not given in the Local Government's report.
(*d*) Excludes R5,731 expended in the Sindh Circle and charged in the accounts of the Public Works Department.

APPENDIX XI.

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules.

Province.	Number of cases decided by the courts.	Number of cases compounded.	Total.	Percentage of convictions to total number of cases decided by the courts.
Bengal	269	1,862	2,131	85
United Provinces	(a)70	(a)1,053	1,123	77
Punjab	815	4,346	5,161	81
Burma	1,241	2,190	3,431	83
Eastern Bengal and Assam	220	618	838	82
Central Provinces (including Berar)	348	5,155	5,503	81
Coorg	3	80	83	100
North-West Frontier	63	568	631	83
Ajmer	19	288	307	84
Baluchistan	35	118	153	88
Andamans	...	...	...	...
Total Bengal	3,083	16,278	19,361	82·5
„ Madras	5,217	14,510	(b)19,727	86·2
„ Bombay	2,077	16,693	18,770	89·0
*Grand Total 1906-07	10,377	47,481	57,858	85·9
*Grand Total 1905-06	11,160	46,564	57,724	88·3
*Grand Total 1904-05	10,209	43,842	54,051	89·0
*Grand Total 1903-04	10,928	40,709	51,637	83·4

* Includes cases which were pending at the close of the previous year.
(a) Excludes breaches of rules in District Forests.
(b) Excludes 1,960 cases withdrawn under the orders of the District Forest Officer.

APPENDIX XII.

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules.

Province.	Cases taken into Court.				Compounded cases.				Cases in which the offenders remained undetected.				Total of each class of offence.				
	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Grand total of cases.
Bengal	19	141	16	79	2	1,281	478	154	67	9	...	5	88	1,431	494	238	2,251
United Provinces	7	25	16	15	7	466	441	139	42	25	8	...	56	516	465	154	1,191
Punjab	22	563	246	48	7	2,081	2,196	59	61	25	1	...	90	2,672	2,443	107	5,312
Burma	40	872	40	217	26	1,222	49	996	37	47	1	6	103	2,141	90	1,219	3,553
Eastern Bengal and Assam	3	146	16	45	...	261	147	200	18	3	...	...	21	410	163	245	839
Central Provinces (including Berar).	61	153	70	59	71	2,818	2,032	198	294	149	5	2	426	3,120	2,107	259	5,912
Coorg	...	...	...	1	...	2	9	63	...	...	...	...	...	2	9	64	75
North-West Frontier	2	51	25	2	...	254	266	48	16	10	...	...	18	315	291	50	674
Ajmer	...	10	9	...	1	206	76	5	3	...	...	...	4	216	85	5	310
Baluchistan	...	20	12	3	...	5	113	...	4	...	...	...	4	25	125	3	157
Andamans	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Bengal	154	1,981	450	469	114	8,599	5,807	1,862	512	268	15	13	810	10,848	6,272	2,344	20,274
,, Madras	54	3,378	1,451	346	26	9,472	6,190	968	490	413	317	36	570	13,263	7,958	1,350	23,141
,, Bombay	198	835	867	187	229	5,823	9,457	1,228	2,331	2,527	255	04	2,758	9,185	10,579	1,519	24,041
*Grand Total, 1906-07	406	6,194	2,768	1,002	369	23,894	21,454	4,058	3,363	3,208	587	153	4,138	33,296	24,809	5,213	67,456
,, ,, 1905-06	421	6,864	3,261	1,189	437	24,070	20,711	3,405	3,462	2,977	672	177	4,320	33,911	24,644	4,771	67,646
,, ,, 1904-05	313	6,431	2,933	1,104	348	23,251	18,950	3,098	3,337	3,186	427	157	3,998	32,868	22,310	4,359	63,535
,, ,, 1903-04	426	5,816	3,589	1,116	471	21,675	17,227	2,759	4,080	2,785	414	131	4,977	30,276	21,230	4,006	60,489

* Includes only the new cases of the year; not those which were left pending at the close of the previous year.

APPENDIX XIII.

[*Vide* paragraphs 18 to 20.]

Causes of Forest fires.

Province.	I.—Fires due to preventible causes.				II.—Other fires.				Total.	
	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the fire traces.		Fires due to carelessness of outsiders or to unknown causes.		Fires originating from intention or malice.			
	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.
Bengal	5	0·3	...	...	10	1·3	18	5·5	33	7·1
United Provinces — Eastern Circle	2	·1	7	8	23	20·6	3	2·0	35	30·7
United Provinces — Western „	4	·7	2	·7	7	2·2	2	·2	15	3·8
United Provinces — Total	6	0·8	9	8·7	30	22·8	5	2·2	50	34·5
Punjab	8	·13	10	·2	63	4·5	18	1·3	99	6·2
Burma — Pegu Circle	10	13·5	20	33·2	59	135·5	25	37·3	114	219·5
Burma — Tenasserim Circle	3	0·1	8	77·2	20	39·4	8	2·3	39	119·0
Burma — Northern „	5	2·2	11	3·2	4	1·6	1	0·1	21	7·1
Burma — Southern „	7	5·6	15	5·7	52	9·6	7	4·6	81	25·5
Burma — Total	25	21·4	54	119·3	135	186·1	41	44·3	255	371·1
Eastern Bengal and Assam	3	...	6	0·5	13	4·7	1	...	23	5·2
Central Provinces — Northern Circle	17	7	19	21	80	43	3	6	119	77
Central Provinces — Southern „	13	3	26	47	60	55	2	...	101	105
Central Provinces — Berar „	20	3	11	6	38 †27	6 †65	2	1	98	81*
Central Provinces — Total	50	13	56	74	205	169	7	7	318	263
Coorg	...	...	...	...	...	...	...	...	...	...
North-West Frontier	...	...	...	...	11	·02	7	·01	18	·03
Ajmer	...	...	1	·02	3	·01	...	...	4	·06
Total Bengal	97	35·6	136	202·7	470	388·4	97	60·3	800	687·1
Madras — Northern Circle	82	57	18	18	54	73	25	15	179	163
Madras — Central „	10	2	77	44	226	70	227	154	540	270
Madras — Southern „	9	2	15	4	80	7	45	21	149	34
Madras — Total	101	61	110	66	360	150	297	190	868	467
Bombay — Northern Circle	44	3	83	35	827	242	18	3	972	†283
Bombay — Central „	29	2	13	60	817	810	16	15	875	887
Bombay — Southern „	11	9	73	8	698	205	51	32	833	254
Bombay — Sindh „	1	...	1	...	42	3	...	...	44	3
Bombay — Total	85	14	170	103	2,394	1,260	85	50	2,724	1,427
Grand Total — 1906-07	283	110·6	416	371·7	3,214	1,798·4	479	300	4,392	2,581
Grand Total — 1905-06	297	217	478	623½	2,250	1,271	1,887	1,386½	4,892	3,498

* A total area of 95 square miles is shown as burnt in Berar in the report of that circle. The excess of 14 square miles over the total shown in this statement is not explained.

† In Form No. 58 in the Bombay report only 221 square miles are shown as burnt, the discrepancy which arises in Surat division is unexplained.

APPENDIX XIV.

[*Vide* paragraph 21.]

Protection from Cattle.

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			All classes of Forests.		
	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m,	Sq. m.
Bengal	4,240	3,582	88	2,833	1,733	422	..	...	...	7,073	5,315	510
United Provinces	4,091	2,065	703	30	...	30	43	1	30	4,164	2,066	763
Punjab	2,332	621	511	5,241	58	143	1,756	5	78	9,329	684	732
Burma	21,575	17,643	83	...	...	...	108,965	...	...	130,540	17,643	83
Eastern Bengal and Assam	6,256	4,630	1,086	5	...	...	22,956	...	...	29,217	4,630	1,086
Central Provinces including Berar.	21,998	3,955	7,696	...	...	...	4	...	...	22,002	3,955	7,696
Coorg	476	183	...	...	...	...	30	...	...	506	183	...
North-West Frontier	234	72	94	...	...	...	...	...	...	234	72	94
Ajmer	142	53	89	...	...	...	6	...	...	148	53	89
Baluchistan	280	209	8	...	...	...	...	...	...	280	209	8
Andamans	156	156	...	...	...	...	1,794	...	...	1,950	156	...
Total Bengal	61,780	33,169	10,858	8,109	1,791	595	135,554	6	108	205,443	34,966	11,061
„ Madras	18,541	1,947	811	...	(a)	(a)	1,079	(a)	(a)	19,620	1,947	811
„ Bombay	13,716	2,696	7,654	1,359	...	33	...	...	...	15,075	2,696	7,687
Grand Total 1906-07	94,037	37,812	18,823	9,468	1,791	628	136,633	6	108	240,138	39,609	19,559
Grand Total 1905-06	92,496	36,930	15,546	10,018	1,805	522	131,137	13	171	233,651	38,748	16,239

(a) Closed areas in 'reserved lands' are included in those shown under reserved forests.

APPENDIX XV.

[*Vide* paragraph 21.]

Protection from Cattle.

Provinces.	Circle.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.										GRAZED FREE, NUMBER OF ANIMALS.									
		At full rates.					At privilege rates.					By right under Settlement.					During pleasure of Government or otherwise than under Settlement.				
		Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
Bengal	...	6,248	35,428	5,634	...	15	9,413	152,461	12,561	...	529	21,000	63,000	21,000	...	...	20	242	137	...	...
United Provinces.	Eastern	35,886	26,754	4,744	...	1,530	28,724	128,606	53,776	...	975	14,399	51,618	2,398	...	944	2,682	7,464	909	...	796
	Western	28,852	62,084	21,784	2,035	5,207	5,221	29,464	53,681	...	2,193	8,687	71,636	50,123	...	40	546	7,125	590	...	22
Total	...	64,738	88,838	26,528	2,035	6,737	34,945	158,070	107,457	...	3,078	23,086	123,254	52,521	...	984	3,228	14,589	1,489	...	818
Punjab	...	17,450	44,020	361,638	10,443	1,627	1,728	10,747	247,732	217	949	145,215	664,188	700,455	282	12,930	30	732	72	2,120	69
Burma	Pegu	2,236	1,274	...	...	7	...	...	...	...	...	17,085	37,818	...	...	1	...	...	...	...	...
	Tenasserim	13	...	...	...	...	...	...	...	...	...	24,542	4,442	...	...	11	...	...	...	...	...
	Northern	...	...	...	...	...	70	...	...	...	...	14,467	226	...	...	...	619	...	...	...	283
	Southern	76	454	28	...	20	...	...	...	...	...	656	87,203	...	...	...	2,770	...	...	...	775
Total	...	2,826	1,728	28	...	27	70	...	...	...	...	56,750	129,689	...	...	12	3,389	...	...	...	1,058
Eastern Bengal and Assam.	...	38,991	8,934	6	...	775	...	56,766	...	...	...	...	60	...	...	...	66,436	375,564	72,777	...	647
Central Provinces.	Northern	238,187	1,103,970	93,575	...	6,085	...	...	...	...	...	...	...	...	...	...	100	11,197	...	...	...
	Southern	35,099	258,302	107,022	...	367	61,962	539,605	77,746	...	510	...	...	...	...	...	417	4,140	28	...	...
	Berar	216,098	1,122,527	574,069	169	4,204	6,845	46,519	6,101	...	272	...	112,634	...	...	...	27	14,012	1,153	...	86
Total	...	489,381	2,484,799	774,666	169	10,656	68,807	586,124	83,847	...	782	...	112,634	...	...	...	544	29,349	1,181	...	86
Coorg	...	456	1,943	...	...	...	...	...	...	...	...	...	1,676	...	...	...	...	30	...	...	...
North-West Frontier.	...	1,630	1,933	20	...	55	...	...	...	...	...	370	740	...	...		1,301	6,644	...	...	9
Ajmer	...	171	1,209	...	...	...	1,556	8,339	...	...	...	...	...	...	...	...	107	1,052	...	...	...
Baluchistan	...	220	2,059	1,640	...	...	...	...	...	...	...	...	1,337	21,959	1	662	...	...	...	...	...
Total Bengal.	1906-07	617,117	2,670,896	1,170,160	12,647	19,892	116,519	972,507	451,597	217	5,338	246,421	1,096,578	795,935	283	14,588	75,055	428,202	75,656	2,120	2,687
	1905-06	566,384	2,437,502	1,164,193	8,731	19,497	149,434	1,114,804	457,354	178	4,851	244,686	1,065,905	739,653	283	13,734	97,027	512,535	76,239	4,419	1,800
Madras	Northern	85,391	442,737	715,764	...	106	6,869	49,364	92,086	...	...	1,491	4,497	2,202	...	...	1,364	15,682	152	...	...
	Central	41,158	767,665	922,253	...	...	12	1,446	775	...	...	...	685	...	...	...	681	2,353	41	...	...
	Southern	31,811	350,383	170,590	...	282	...	85	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	1906-07	158,360	1,560,785	1,808,607	...	388	6,861	50,895	92,861	...	...	1,491	5,182	2,202	...	...	2,045	18,035	193	...	...
	1905-06	143,681	1,589,204	1,637,807	...	996	9,436	77,412	9,557	...	...	...	4,585	5,505	...	...	705	4,810	35	...	...
Bombay	Northern	918	3,454	...	...	13	76,515	7,527	171	...	181	...	...	...	...	...	47,977	279,277	...	...	1,450
	Central	3,337	13,529	2,646	...	708	23,056	256,943	157,065	...	4,181	5,516	28,126	...	...	633	...	...	...	...	...
	Southern	...	(a) 3,196	1,825	...	...	...	(a) 271,669	6,312	...	67	...	...	...	...	...	...	...	...	...	...
	Sindh	10,414	9,989	51,555	1,268	156	816	1,172	2,382	83	159	3,074	11,595	91	2	134	473	1,133	1,147	1,000	2,077
Total	1906-07	14,669	30,168	56,026	1,268	877	100,387	537,311	165,880	83	4,591	8,590	39,721	91	2	767	48,450	280,410	1,147	1,000	3,527
	1905-06	21,312	37,626	208,991	1,690	1,598	502,021	363,584	141,205	70	4,143	2,942	10,252	91	2	112	51,330	321,943	2,692	1,131	5,059
Grand Total.	1906-07	790,144	4,261,849	3,034,793	13,915	21,157	223,817	1,560,713	710,338	300	9,929	256,502	1,141,481	798,228	285	15,355	125,550	726,647	76,996	3,120	6,214
	1905-06	731,377	4,064,332	3,010,697	10,421	22,091	660,991	1,555,809	608,116	256	8,999	247,628	1,080,742	745,243	285	13,846	149,062	839,268	78,966	5,550	6,859

(a) Includes buffaloes.

APPENDIX XVI.

[*Vide* paragraphs 28 to 30.]

Area of Plantations and the cost of the year's work.

Province.	AREA IN ACRES.												Cost of operations during the year.
	At commencement of the year.			Added during the year.			Excluded during the year.			Balance at close of the year.			
	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	
													R
Bengal . . .	1,213	...	1,213	105	...	105	564	...	564	754	...	754	1,301
United Provinces . .	3,519	...	3,519	153	...	153	...	...	...	3,672	...	3,672	2,329
Punjab . . .	507	...	507	...	...	...	...	...	...	507	...	507	1,682
Burma	5,648	70,655	76,303	140	2,329	2,469	142	31	173	5,646	72,953	78,599	1,10,912
Eastern Bengal and Assam.	3,875	7	3,882	...	...	...	14	...	14	3,861	7	3,868	7,215
Central Provinces including Berar.	747	...	747	294	50	344	...	...	...	1,041	50	1,091	476
Coorg	2,062	1,067	3,129	...	130	130	...	...	...	2,062	1,197	3,259	2,133
North-West Frontier .	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	96	...	96	4	...	4	36	...	36	64	...	64	705
Baluchistan . . .	36	...	36	...	...	...	3	...	3	33	...	33	210
Andamans . . .	657	392	1,049	44	225	269	4	...	4	697	617	1,314	5,603
Total Bengal .	18,360	72,121	90,481	740	2,734	3,474	763	31	794	18,337	74,824	93,161	1,32,716
„ Madras .	22,123	2,226	24,349	1,225	25	1,250	340	...	340	23,008	2,251	25,259	85,864
„ Bombay .	21,355	...	21,355	1,379	...	1,379	6,369	...	6,369	16,365	...	16,365	12,456
Grand Total 1906 07	61,838	74,347	136,185	3,344	2,759	6,103	7,472	31	7,503	57,710	77,075	134,785	2,31,036
Grand Total 1905-06	58,099	70,325	128,424	11,587	2,590	14,177	5,934	138	6,072	63,752	72,776	136,528	2,40,606

APPENDIX XVII.

[*Vide* paragraph 38.]

Outturn of Forest Produce.

I

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			Average outturn per square mile. Reserved Forests.			Protected Forests.			Unclassed Forests.		
	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.
	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C.ft.	No.	R	C.ft.	No.	R	C.ft.	No.	R
Bengal	17,312,263	7,062,402	1,46,183	17,304,240	4,497,709	1,41,950	43	...	...	4,083	1,665	34	6,108	1,587	50	...	...	...
United Provinces . .	16,306,718	15,706,186	4,10,380	342,132	32,350	4,235	144,697	48,890	2,346	3,986	3,840	100	11,404	1,078	141	3,481	1,137	54
Punjab	10,132,975	101,525	2,3,763	16,838,684	12,216	2,43,492	779,495	10,633	51,253	4,345	43	109	3,222	2	46	443	6	29
Burma	9,415,564	16,847,000	1,49,571	...	...	...	28,454,748	41,626,000	2,56,762	436	781	6	...	...	...	261	382	2
Eastern Bengal and Assam.	6,201,129	11,621,478	1,09,950	...	...	...	10,937,774	12,298,245	5,19,448	991	1,857	17	...	...	...	476	535	22
Central Provinces including Berar.	23,881,779	24,743,495	†13,37,462	...	...	...	...	...	10	1,085	1,124	65	...	...	...	...	...	2
Coorg	208,636	103,650	14,933	...	...	...	143,760	22,000	...	438	217	31	...	...	...	4,792	733	...
North-West Frontier Provinces.	1,231,952	...	17,593	...	...	...	...	...	...	5,478	...	75	...	...	...	...	...	...
Ajmer	584,845	14,709	31,866	3,263	...	178	...	...	...	4,118	103	224	...	...	...	...	...	...
Baluchistan . . .	77,060	...	18,676	...	...	...	269,300	...	47	275	...	66	...	...	...	...	...	...
Andamans . . .	660,053	209,072	953	...	...	...	1,059,520	545,856	8,947	4,231	1,340	6	...	...	...	588	303	5
Total, Bengal, 1906-07.	86,062,974	76,409,517	24,81,330	34,538,319	4,542,275	3,89,855	41,789,337	54,551,624	8,38,813	1,393	1,236	40	4,259	560	48	308	402	6
„ „ 1905-06.	90,389,850	69,249,513	24,56,726	38,649,810	4,650,886	3,82,184	50,722,067	90,397,967	7,76,676	1,489	1,141	40	4,480	539	44	390	695	6

* Excludes bamboos valued at R20 removed by right holders.
† Includes R4,852 on account of commutation fees for removal of bamboos.

II

Presidency.	Total area under control of Forest Department.	Timber and Fuel.	Bamboos.	Minor produce.	Average Outturn per square mile. Timber and Fuel.	Bamboos.	Minor produce.
	Sq. m.	C. ft.	No.	R	C. ft.	No.	R
Bengal	205,443	162,390,630	135,503,416	37,19,998	790	659	18
Madras	19,620	23,975,356	39,282,182	15,20,606	1,222	2,002	77
Bombay	15,075	35,780,962	6,608,172	13,49,415	2,373	438	89
Grand Total (1906-07) .	240,138	222,146,948	181,393,770	65,90,019	925	755	27
Grand Total (1905-06) .	233,651	246,334,840	210,173,780	55,12,809	1,054	899	23

APPENDIX XVIII.

Forest Produce removed by different agencies.

APPENDIX

[*Vide* para

Forest Produce removed

Province.		Timber.				Fuel.			
		Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.
		C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal		33,837	4,689,531	18,812	175,696	161,031	16,132,591	20,094	13,384,954
United Provinces		135,145	4,225,969	36,184	672,003	431,874	7,674,349	186,975	3,431,048
Punjab		522,863	3,184,929	31,380	882,363	1,512,061	1,725,696	93,815	19,84[illegible],047
Burma		4,122,202	18,846,484	444,799	484,546	110,212	12,179,766	56,611	1,625,692
Eastern Bengal and Assam		523,020	4,707,401	521,567	1,450	55,433	6,484,894	3,825,773	1,019,365
Central Provinces including Berar		787,775	3,631,122	76,825	48,225	762,292	15,517,388	1,513,399	1,544,753
Coorg		110,646	162,410	...	...	12,900	66,440	...	...
North-West Frontier Province		202,673	720,558	3,325	...	43,281	244,735	32,400	34,980
Ajmer		381	2,970	...	564	10,091	572,106	1,936	60
Baluchistan		147	2,970	3,821	...	61,191	256,511	8,010	12,710
Andamans (*b*)		654,055	23,512	28,020	(*b*)77,881	682,280	4,920	224,160	(*b*)24,745
Total Bengal	1906-07	7,092,744	40,198,856	1,164,733	2,342,728	3,842,646	60,859,396	5,963,173	40,926,354
	1905-06	8,275,740	46,765,284	1,353,596	4,685,422	5,666,334	55,330,538	6,436,795	44,072,682
Madras		555,629	1,840,167	82,601	90,941	12,544,480	8,595,705	8,285	257,548
Bombay		1,070,900	3,372,710	78,023	...	4,338,800	22,767,065	20,409	4,133,055
Grand Total	1906-07	8,719,273	45,411,733	1,325,357	2,433,669	20,725,926	92,222,166	5,991,867	45,316,957
	1905-06	10,296,310	50,836,317	1,758,952	4,783,137	20,195,946	88,007,122	6,453,358	56,828,362

(*a*) Bamboos valued at R20 were removed by right-holders in Coorg.
(*b*) Removed by District Officers.

XVIII.

graphs 35 to 37.]

by different agencies.

Bamboos.				Minor Produce including Grass and Grazing.				Province.
Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	
No.	No.	No.	No.	R	R	R	R	
474,123	7,066,249	19,289	4,000,450	1,130	1,72,400	1,690	1 12,913	Bengal.
50,764	15,494,629	...	242,033	81,952	2,73,381	10,716	50,912	United Provinces.
56,135	68,219	...	...	1,182	1,67,502	1,065	3,78,759	Punjab.
50,000	53,002,000	92,000	5,329,000	8,098	2,68,840	12,427	1,16,968	Burma.
22,451	20,127,612	1,877,460	1,892,200	37,484	2,30,166	3,47,539	14 209	Eastern Bengal and Assam.
437,008	23,246,939	698,548	361,000	11,211	12,72,935	14,097	39,229	Central Provinces including Berar.
...	125,650	...	(a)	...	14,933	...	...	Coorg.
...	...	...	...	445	9,440	7,058	650	North-West Frontier Province.
5,161	9,548	...	...	2,930	2,954	1,974	24,186	Ajmer.
...	...	...	...	17	1,037	926	16,743	Baluchistan.
17,200	17,900	373,600	(b)346,228	5,985	215	2,381	(b)1,319	Andamans (b).
1,112,862	119,158,746	3,060,897	12,170,911	1,50,434	24,13,803	3,99,873	7,55,888	Total Bengal . 1906-07.
1,254,030	149,064,525	2,889,655	11,090,256	1,93,496	22,80,225	4,13,501	7,32,415	Total Bengal . 1905-06.
5,949,691	33,178,499	132,278	21,714	63,977	14,14,330	746	41,553	Madras.
9,140	(c)5,932,140	29,392	(d)637,500	58,906	6,59,159	5,348	6,26,002	Bombay.
7,071,693	158,269,385	3,222,567	12,830,125	2,73,317	44,87,292	4,05,967	14,23,443	Grand Total 1906-07.
3,837,723	185,306,629	3,236,683	17,792,745	4,85,101	41,74,894	4,37,067	9,09,810	Grand Total 1905-06.

(c) Exclusive of 4,247 cart loads and 417 head loads.
(d) Exclusive of 20,000 cart loads of bamboos.

APPENDIX XIX.

[*Vide* paragraphs 39 and 40.]

Comparative Statement of Revenue and Expenditure.

Province	Revenue.		Surplus.		Deficit.		Proportion of Surplus to Gross Revenue.	Net Revenue per square mile of land under control of Forest Department.
	1906-07.	Average for preceding 5 years.	1906-07.	Average for preceding 5 years.	1906-07.	Average for preceding 5 years.		
	R	R	R	R	R	R	Per cent.	R
Imperial	...	5,124	...	...	95,472	79,021	...	...
Bengal	10,65,859	11,80,004	4,32,473	5,24,801	...	...	40·6	61
United Provinces . . .	25,02,664	21,70,405	11,96,013	9,90,217	...	...	47·8	287
Punjab	16,05,284	16,81,572	4,60,881	6,15,399	...	...	34·8	49
Burma	98,12,519	80,34,230	61,52,766	47,79,366	...	...	62·7	47
Eastern Bengal and Assam .	13,20,592	7,38,134	6,12,732	3,02,201	...	...	46·3	21
Central Provinces and Berar .	24,01,159	19,44,833	10,58,281	6,71,448	...	...	44·0	48
Coorg	2,35,909	2,04,702	1,33,054	1,15,996	...	...	56·6	263
North-West Frontier Province .	1,83,214	87,097	89,564	26,215	...	...	48·6	383
Ajmer	18,335	12,557	1,620	...	...	3,794	8·8	11
Baluchistan	21,195	19,289	...	...	5,127	4,677	...	...
Andamans	6,07,027	4,45,725	3,11,891	1,03,299	...	...	51·2	159
Imperial Forest College . .	4,579	3,294	...	...	1 32,907	65,517	...	...
Forest Surveys . . .	...	787	...	...	30,389	31,197	...	...
Total Bengal .	1,97,78,336	1,65,27,755	1,01,85,380	80,00,095	...	...	51·5	46
Madras	32,90,669	27,22,358	8,10,0.9	8,12,611	...	...	24·6	41
Bombay	34,22,481	27,93,195	14,32,298	9,52,804	...	...	41·8	95
Grand Total 1906-07 .	2,64,91,486	2,20,43,308	1,24,27,686	97,65,510	...	...	46·9	52
Grand Total 1905-06 .	2,66,74,593	2,06,62,489	1,24,16,072	85,24,085	...	...	46·5	50

APPENDIX XX.

[*Vide* paragraph 40.]

Estimated value of Forest Produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos	Minor Produce.	Grass and Grazing.	Total.
	₹	₹	₹	₹	₹	₹
Bengal	9,637	58,878	4,866	44,036	66,266	1,83,683
United Provinces . .	75,767	59,575	1,037	5,657	92,205	2,34,241
Punjab	45,592	1,79,848	...	49,542	3,28,984	6,03,966
Burma	1,11,544	24,360	40,876	16,147	1,11,258	3,04,185
Eastern Bengal and Assam	28,182	64,592	7,948	2,02,074	1,59,672	4,62,468
Central Provinces including Berar.	4,393	(*a*) 56,122	12,081	34,367	18,582	1,25,545
Coorg	...	...	...	...	...	...
North-West Frontier Province.	115	254	...	...	7,058	7,427
Ajmer	69	(*b*) 1	...	26,618	...	26,688
Baluchistan . . .	(*c*) 1,193	1,059	...	926	16,743	19,921
Andamans . . .	2,104	6,222	900	3,700	...	12,926
Total Bengal .	2,78,596	4,50,911	67,708	3,83,067	8,00,768	19,81,050
„ Madras .	40,341	5,402	845	39,689	6,192	92,469
„ Bombay .	51,196	1,94,698	93,877	1,39,759	8,52,383	13,31,913
Grand Total 1906-07 .	3,70,133	6,51,011	1,62,430	5,62,515	16,59,343	34,05,432
Grand Total 1905-06 .	4,21,470	7,68,713	79,895	5,09,870	17,16,125	34,96,073

(*a*) Includes the value of 48,225 cubic feet of timber removed by right-holders in Berar Circle.
(*b*) The value of 1,936 cubic feet of fuel supplied to District Officers' camps is not shown in the report.
(*c*) Includes the cost of 8,000 cubic feet of fuel granted free to zemindars.

APPENDIX XXI.

[*Vide* paragraph 41.]

Details of Revenue and Expenditure.

				R
Gross Receipts	(*a*) Wood			2,03,42,597
	(*b*) Minor forest produce			19,49,606
	(*c*) Forest stamps and commutation fees for forest produce			7,84,881
	(*d*) Grazing			22,03,574
	(*e*) Revenue from forests not managed by Government			4,36,315
	(*f*) Miscellaneous			7,74,513
			TOTAL REVENUE	2,64,91,486
Expenditure	A Recurring	(*a*) Administration.	(i) Superior Staff	24,29,422
			(i) Exchange Compensation allowance.	56,673
			(iii) Subordinate Staff (including Rangers, Foresters and Guards).	21,99,459
			(iv) Office Establishments (including Contingencies).	11,01,204
		(*b*) Working	(1) Extraction	39,50,804
			(2) Roads and Buildings	9,83,944
			(3) Fire-protection	5,90,714
			(4) Cultural operations	5,59,001
			(5) Live-stock, stores and plant.	4,56,541
			(6) Working-Plans	90,513
			(7) Rent for leased forests.	7,90,940
			(8) Miscellaneous	2,11,921
		(*c*) Expenditure on realization of revenue from forests not managed by Government.		19,525
		(*d*) Forest Science and Education (including all "A" and "B" charges of Forest School).		1,37,486
			Total	1,35,78,147
	B Extraordinary	(*e*) Forest Settlement		78,116
		(*f*) Forest Surveys		2,97,964
		(*g*) Forest Demarcation		1,09 573
			Total	4,85,653
			GRAND TOTAL, EXPENDITURE	1,40,63,800
			Net Revenue	1,24,27,686

APPENDIX XXII.

Summary of the Revenue and Expenditure of the Forest Department in India for the financial year 1906-07.

APPEN

[*Vide* paragraphs

Summary of Revenue and Expenditure of the Forest

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma (Lower).	Burma (Upper).	Eastern Bengal and Assam.	Central Provinces including Berar.	Coorg.	North-West Frontier Province.
REVENUE.										
I.—Timber and other produce removed from the forests by Government agency.	...	46,155	2,24,800	7,64,322	36,87,361	9,08,021	2,85,272	2,31,186	1,96,160	88,028
II.—Timber and other produce removed from the forests by consumers or purchasers.	...	9,82,385	21,46,958	7,14,377	14,02,147	30,91,671	8,29,510	20,95,744	36,412	89,934
III.—Drift and waif wood and confiscated forest produce.	...	4,085	20,059	80,353	1,91,905	1,14,444	29,906	1,941	...	...
IV.—Revenue from forests not managed by Government.	...	...	14,473	1,152	3,01,348	...	1,00,354	370	...	...
V.—Miscellaneous . . .	...	32,734	96,374	45,080	67,325	48,297	75,550	71,918	3,337	5,252
Total Revenue .	...	10,65,859	25,02,664	16,05,284	56,50,086	41,62,433	13,20,592	24,01,159	2,35,909	1,83,214
EXPENDITURE.										
A.—Conservancy and Works.										
I.—Timber and other produce removed from the forests by Government agency.	...	28,589	1,00,344	2,71,985	8,74,664	2,82,285	1,60,705	87,771	11,883	32,494
II.—Timber and other produce removed from the forests by consumers or purchasers.	...	91,985	44,031	2,308	57,307	20,257	18,598	1,19,614	...	108
III.—Drift and waif wood and confiscated forest produce.	...	620	5,511	17,695	78,094	31,071	1,224	30	...	...
IV.—Revenue from forests not managed by Government.	...	...	3,453	...	1,720	...	14,043	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	...	27,030	3,21,157	3,51,302	...	...	21,136	...	...	25,550
VI.—Live-stock, stores, tools and plant.	...	14,529	34,530	6,965	41,394	79,502	26,960	40,415	8,369	494
VII.—Communications and buildings .	...	75,116	2,08,565	80,736	75,723	91,295	66,819	1,28,369	6,488	3,816
VIII.—Demarcation, improvement, and extension of forests.	...	83,542	1,23,311	59,522	3,71,077	2,84,727	68,730	1,36,694	17,589	3,250
IX.—Miscellaneous . . .	...	7,426	13,025	5,702	29,013	12,158	7,885	12,043	1,714	908
Total A.—Conservancy and Works .	...	3,28,837	8,53,947	7,96,215	15,28,992	8,01,295	3,86,100	5,24,936	46,043	66,620
B.—Establishments.										
I.—Salaries	72,536	2,53,027	3,65,883	2,73,985	5,72,782	5,19,084	2,57,664	6,97,177	43,616	22,115
II.—Travelling allowances . .	14,006	39,050	53,632	47,840	79,896	90,531	44,053	65,739	6,876	3,006
III.—Contingencies . . .	8,930	12,472	33,189	26,363	39,398	27,775	20,043	55,026	1,320	1,909
Total B.—Establishments .	95,472	3,04,549	4,52,704	3,48,188	6,92,076	6,37,390	3,21,760	8,17,942	56,812	27,030
Grand Total of Expenditure .	95,472	6,33,386	13,06,651	11,44,403	22,21,068	14,38,685	7,07,860	13,42,878	1,02,855	93,650
Surplus .	...	4,32,473	11,96,013	4,60,881	34,29,018	27,23,748	6,12,732	10,58,281	1,33,054	89,564
Deficit .	95,472	...	...	...	...	...	...	...	...	...

DIX XXII.

39 and 40.]

Department in India for the financial year 1906-07.

Ajmer.	Baluchistan.	Andamans.	Forest School.	Forest Surveys (Imperial).	Total Bengal Presidency.	Madras.	Bombay.	Grand Total.	Budget Heads.
									REVENUE.
6,262	10,393	6,01,559	...	...	70,48,520	12,31,028	12,32,850	95,12,398	I.—Timber and other produce removed from the forests by Government agency.
12,020	1,712	3,185	...	...	1,14,06,554	18,93,372	20,84,801	1,53,84,727	II.—Timber and other produce removed from the forests by consumers or purchasers.
37	8	...	...	...	4,42,738	13,589	4,227	4,60,554	III.—Drift and waif wood and confiscated forest produce.
...	8,922	...	...	...	4,26,619	...	9,696	4,36,315	IV.—Revenue from forests not managed by Government.
1,016	160	2,283	4,579	...	4,53,905	1,52,680	90,907	6,97,492	V.—Miscellaneous.
18,335	21,195	6,07,027	4,579	...	1,97,78,336	32,90,669	34,22,481	2,64,91,486	Total Revenue.
									EXPENDITURE.
									A.—Conservancy and Works.
1,629	5,103	1,85,462	...	...	20,42,914	7,09,456	4,45,886	31,98,251	I.—Timber and other produce removed from the forests by Government agency.
66	1	...	...	...	3,54,295	1,16,762	1,45,184	6,16,241	II.—Timber and other produce removed from the forests by consumers or purchasers.
2	...	...	...	...	1,34,247	1,926	139	1,36,312	III.—Drift and waif wood and confiscated forest produce.
...	309	...	...	...	19,525	...	...	19,525	IV.—Revenue from forests not managed by Government.
...	...	...	...	...	7,46,175	17,713	27,052	7,90,940	V.—Rent of leased forests and payments to shareholders in forests managed by Government.
296	133	48,370	5,656	...	3,07,614	1,47,406	7,177	4,62,197	VI.—Live-stock, stores, tools and plant.
571	319	8,372	121	...	7,46,310	1,54,324	83,431	9,84,065	VII.—Communications and buildings.
1,199	329	14,522	...	30,389	11,94,881	3,64,800	1,66,200	17,25,881	VIII.—Demarcation, improvement, and extension of forests.
5	25	5,032	2,496	...	97,432	8,596	1,08,389	2,14,417	IX.—Miscellaneous.
3,768	6,219	2,61,758	8,273	30,389	56,43,393	15,20,978	9,83,458	81,47,829	Total A.—Conservancy and Works.
									B.—Establishments.
11,246	16,208	29,161	1,09,436	...	32,48,920	7,27,326	8,42,541	48,18,787	I.—Salaries.
854	2,938	3,603	11,627	...	4,63,651	1,58,879	1,12,316	7,34,846	II.—Travelling allowances.
847	957	614	8,150	...	2,36,993	73,477	51,868	3,62,338	III.—Contingencies.
12,947	20,103	33,378	1,29,213	...	39,49,564	9,59,682	10,06,725	59,15,971	Total B.—Establishments.
16,715	26,322	2,95,136	1,37,486	30,389	95,92,957	24,80,660	19,90,183	1,40,63,800	Grand Total of Expenditure.
1,620	...	3,11,891	...	...	1,01,85,379	8,10,009	14,32,298	1,24,27,686	Surplus.
..	5,127	...	1,32,907	30,389	...	...	...	...	Deficit.

APPEN

[*Vide* paragraphs

Revenue, Expenditure and Surplus of the Forest Department through-

(I) REVE

Province.	1882-83.	1883-84	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.
	R	R	R	R	R	R	R	R	R	R	R	R	R
Imperial*	30,732	32,907	26,574	14,708	4,186	4,847	4,017	4,759	6,370	6,688	5,240	2,680	4,980
Bengal	6,93,959	6,94,334	5,71,152	5,97,432	6,53,634	6,57,794	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670
United Provinces	10,13,403	16,11,483	15,72,319	14,61,495	15,73,556	12,47,451	14,62,802	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860	16,58,250
Punjab	7,66,709	9,10,177	7,19,352	8,50,419	11,27,277	7,86,936	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430
Burma (Lower)	25,03,896	25,09,275	16,70,982	20,23,859	19,98,667	22,18,897	26,09,305	31,34,716	26,77,671	28,58,114	35,83,370	34,89,350	32,74,200
Burma (Upper)	...	...	...	...	1,08,071	2,96,876	15,79,928	18,06,070	16,44,297	13,27,306	20,76,630	22,95,750	21,62,580
Eastern Bengal and Assam	2,48,605	2,11,445	1,80,414	1,96,656	2,12,011	2,67,312	3,03,882	3,79,498	3,26,793	3,36,129	3,82,330	4,38,500	4,35,090
Central Provinces and Berar	12,69,661	13,02,987	13,75,321	13,57,376	12,84,322	15,00,412	15,88,382	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030
Coorg	1,38,022	87,822	1,13,233	89,386	99,291	1,27,028	1,36,183	92,753	1 35,561	1,82,897	1,80,680	1,73,790	1,53,050
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	5 039	4,752	6,089	14,962	14,081	14,063	5,668	13,897	15,724	20,609	19,030	20,730	16,300
Ajmer	7 1 6	8,198	10,456	9,697	11,274	14,293	13,571	11,592	15,266	19,799	14,890	14,620	12,840
Andamans	70,858	24,762	22,213	23,944	31,870	1,04,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530
Forest School	...	...	73	273	415	777	449	1,237	1,184	1,788	1,980	1,990	2,790
Forest Surveys (Imperial)	348	36	234	202	241	40	315	220	2,104	257	520	240	80
Total	67,48,358	73,98,678	62,48,412	66,40,409	71,18,899	72,40,791	95,33,255	1,06,08,249	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820
Madras	9,06,142	9,53,704	11,66,916	11,98,650	12,45,911	13,74,920	15 15,006	15,57,627	17,95,408	16,94,216	15,77,210	19,47,180	18,94,030
Bombay	20,90,353	25,03,100	27,74,842	33,66,286	30,32,676	30,32,577	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030
Grand Total	97,45,153	1,08,54,882	1,01,90,170	1,12,05,345	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880

The figures in this statement have been
*Includes certain home receipts and

(II) EXPEN

Imperial*	87,268	98,266	96,306	88,215	86 299	78,626	86,199	81,311	85,414	65,788	1,07,270	80,840	81,950
Bengal	3,82,183	3,82 813	4,11,915	3,70,399	4,22,781	3,90 368	3,76,270	3,98,150	4,14,004	4,22,930	3,81,610	4,01,040	3,97,390
United Provinces	8,39 025	10,41,885	10,70,101	9,74,519	9,19,580	8,30,748	8,44 541	9,63,151	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310
Punjab	5,60,750	6,53,146	5,58,070	6,75,483	7,16,510	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,126
Burma (Lower)	12,78,955	12,17,824	12,12,233	11,50,952	10,75,830	10,32,691	12,31,944	13,32,844	10,86,474	13,25,121	13,63,250	13,41,640	13,78,230
Burma (Upper)	...	...	...	...	2,188	1,21,152	7,85,129	2,73,800	3,02,315	3,73,859	4,41,7 0	5,20 850	5,39,760
Eastern Bengal and Assam	1,71,823	1,99,562	1,97,699	2,11,491	2,12,787	2,26,892	2,09,905	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010
Central Provinces and Berar	5,67,301	6,07,880	6,83,274	6,47,614	7,16,469	7,78,812	8,62,864	8,79,458	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700
Coorg	64,770	75,023	76,951	65,690	74,088	72,629	80,175	72,420	65,818	86,860	73,090	86,890	86,140
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	11,962	16,911	13,966	15,799	17,836	17,753	15,994	17,962	29,450	30,497	55,620	63,730	40,910
Ajmer	11,281	14 574	16,316	16,409	29,744	18 897	15,676	12,704	12,720	13,986	15,000	15,900	14,900
Andamans	1,810	12,161	22,760	37,035	25,769	62,674	57,275	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780
Forest School	...	...	22,568	24,233	30,831	33,179	32,961	29,646	35,191	44,347	50,400	65,530	65,980
Forest Surveys (Imperial)	41,595	30,940	19,823	19,180	28,348	32,868	22,164	21,188	24,324	26,882	22,160	27,900	29,840
Total	39,68,756	43,55,985	43,51,282	42,97,118	43,49,560	43,75,149	52,15,005	50,80,690	49,46,325	54,38,471	56,70,870	59,05,990	59,19 020
Madras	6,45,352	7,86,733	8,96 505	9,37,972	11,53,122	11,29,212	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350
Bombay	12,78,770	15,64,172	17,78,723	18,39,461	19,52,910	19,44,005	16,93,962	17,70,691	18,69,887	19,31,457	19,04,970	20,71,940	20,67,920
Grand Total	58,92,878	67,06,890	70,26,510	70,74,551	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290

*Includes pay of Inspector-General of Forests, certain home

(III) SUR

Imperial*	−56 5°6	−65,359	−69,732	−73,537	−82,113	−73,779	−82,182	−76,552	−79,044	−59,100	−1,02,030	−78,160	−79,970
Bengal	3 11,776	3,06 521	1,59,237	2,27,033	2,30,853	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,98,280
United Provinces	1,74,378	5,69,598	5,52,218	4,86,976	6,53,976	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940
Punjab	2,05,959	2 57,031	1,91 282	1,74,936	4,10,767	1,09,024	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360	2 76,870	3,10,310
Burma (Lower)	12,74,941	12,91,451	4,58,749	8,72,907	9,22,837	11,86,203	13,77,361	18,01,872	15,91,197	15,32,993	22,20,120	21,47,710	18,95,970
Burma (Upper)	...	...	...	...	1,05,886	1,75,724	7,94,799	15,32,270	13,41,982	9,53,441	16,34 880	17 74,890	16,22,820
Eastern Bengal and Assam	76,782	11 883	−17,285	−14,838	−276	40 420	93,977	1,22,869	42,941	68,604	1,18,760	2,20,280	1,63,080
Central Provinces and Berar	7,02,360	6,95,107	6,42,047	7,09,762	5,67,853	7,21,610	7,25,518	7,17,264	7,96,095	8,68,804	5,81,240	4,30,840	2,54,330
Coorg	73,252	12,799	36,282	23,696	25,203	54,399	56,008	20,333	69,743	96,037	1,07,590	86,900	66,910
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	−6,923	−12,159	−7,177	−837	−3,755	−3,690	−10,326	−4,065	−13,726	−9,888	−36,590	−43,000	−24,610
Ajmer	−4,158	−6,576	−5,860	−6,772	−9,470	−4,604	−2,102	−1,109	2,546	5,813	−110	−1,280	−2,060
Andamans	69,018	12,601	−547	−13,091	6,101	41,383	48,780	67,220	28,274	92,429	1,29,280	1,97,240	−8,250
Forest School	...	...	−22,495	−23,966	−30,416	−32,352	−32,512	−28,409	−34,007	−42,559	−48,420	−63,540	−63,190
Forest Surveys (Imperial)	−41,247	−30,904	−19,589	−18,978	−28,107	−32,828	−21,849	−20,968	−22,220	−26,625	−21,640	−27,660	−29,760
Total	27,79,602	30,42,003	18,97,130	23,43,291	27,69,339	28,65,642	43,18,250	55,27,659	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800
Madras	2,61,090	1,66,971	2,70,411	2,60,678	93,789	2,35,708	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680
Bombay	8,11,583	9,38,928	9 96,119	15,26,825	10,79,766	10,88,572	11,56,228	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110
Grand Total	38,52,275	41,47,992	31,63,660	41,30,794	39,42,891	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590

*Includes pay of Inspector-General of Forests, certain home

DIX XXIII.

39 to 41.]

out India duringthe 25 (financial) years from 1882-83 to 1906-07.

NUE.

1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903 -04	1904-05.	1905-06.	1906-07.	Provinces.
R	R	R	R	R	R	R	R	R	R	R	R	
2,[illegible]	4,100	19,130	17,540	6,090	2,463	3,484	3,659	7,455	3,768	7,255	..	Imperial.*
9,15,[illegible]0	13,70,850	11,89,280	9,72,310	11,38,910	12,33,339	12,92,237	12,56,237	10,65,523	11,67,472	11,18,542	10,65,859	Bengal.
16,01,540	14,44,820	13,86,670	15,68,040	16,14,740	15,65,463	17,15,508	20,25,324	22,80,446	23,57,318	24,33,428	25,02,664	United Provinces.
10,14,500	11,07,720	10,68,470	14,74,430	14,00,770	13,50,842	14,47,558	15,86,403	17,17,797	18,73,443	17,81,653	16,05,284	Punjab.
34,14,550	38,18,270	40,85,200	42,22,960	43,05,230	45,43,363	36,06,453	37,22,302	49,23,247	54,82,700	65,21,7 6	56,56,686	Burma (Lower).
22,81,280	25,60,680	31,29,060	41,27,930	35,06,820	35,11,081	22,67,185	30,16,151	33,45,288	34,73,056	38,08,164	41,62,433	Burma (Upper).
4,25,030	4,36,440	3,84,820	3,98,180	5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,677	11 06,096	13,20,592	Eastern Bengal and Assam.
14,91,280	12,91,140	11,80,400	14,34,940	12,97,490	12,65,614	15,79,116	16,84,428	19,98,032	20,13,459	24,49,131	24,01,159	Central Provinces and Berar.
1,35,250	93,000	1,30,910	1,55,070	1,62,410	1,37,596	1,70,242	1,90,730	2,24,031	1,93,087	2,45,419	12,35,909	Coorg.
...	...	...	...	...	...	13,012	1,01,123	1,01,833	80,991	1,28,529	1,83,214	North-West Frontier Province.
14,930	15,460	15,040	14,920	17,060	16,956	14,712	19,336	18,363	22,555	21,481	21,195	Baluchistan.
15,640	12,370	15,540	14,420	10,270	10,646	6,865	9,736	13,884	17,297	15,002	18,335	Ajmer.
1,32,120	3,62,370	4,33,710	2,29,460	2,60,600	2,77,816	2,66,903	3,26,035	4,32,381	6,20,796	5,82,511	6,07,027	Andamans.
4,310	2,850	2,8[illegible]0	2,360	3,210	3,697	3,545	3,252	3,038	3,557	3,080	4,579	Forest School.
510	400	220	290	420	327	473	3,034	431	...	..	...	Forest Surveys (Im perial).
1,14,52,140	1,25,20,470	1,30,42,340	1,46,32,850	1,42,92,120	1,44,68,794	1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	Total.
21,10,570	23,03,330	21,36,490	21,10,520	23,02,290	23,40,170	25,43,330	26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	Madras.
35,36,670	30,32,710	26,16,660	22,95,150	24,15,200	29,61,529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,293	34,22,481	Bombay.
1,70,99,380	1,78,56,510	1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,593	2,64,91,486	Grand Total.

furnished by the Comptroller and Auditor General.
undistributable and petty local items.

DITURE.

80,410	78,960	84,300	85,460	96,550	83,578	79,539	85,017	89,345	83,058	83,767	95,472	Imperial.*
4,66,070	6,90,040	6,83,440	4,86,320	5,45,210	5,70,806	6,57,131	6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	Bengal.
9,42,860	9,06,340	9,17,850	9,72,030	9,42,380	9,63,439	10,08,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	United Provinces.
6 78,420	7,23,. 00	7,71,940	8 55,340	12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	12,63,664	11,44,403	Punjab.
13,57,740	15,03,290	14,04,110	15,29,570	15,01,470	15,24,766	14,26,436	15,53,753	20,30,397	20,06,686	24,49,352	22,21,068	Burma (Lower).
5,75,860	6,25,530	7,92,500	8,96,620	9,45,970	11,29,951	12,20,021	13,36,510	13,22,007	14,40,258	14,88,711	14,38,685	Burma (Upper).
2,86,140	2,82,010	2,88,830	3,05,360	3,57,140	3,47,972	3,29,112	3,27,498	4,25,484	5,03,656	5,93,910	7,07,860	Eastern Bengal and Assam.
11,97,850	11,92,860	11,65,490	11,09,400	12,75,820	11,65,866	12,00,904	12,57,288	12,80,966	13,20,615	13,07,153	13,42,878	Central Provinces and Berar.
85,810	71,630	87,020	80,100	74,220	70,905	82,333	89,431	92,191	83,820	95,748	1,02,855	Coorg.
...	...	...	...	...	...	19,510	54,086	60,603	74,958	95,258	93,650	North-West Frontier Province.
41,770	29,770	27,330	27,760	28,680	29,254	24,480	23,240	21,697	24,672	25,743	26,322	Baluchistan.
15,730	22,010	14,670	16,300	15,350	16,782	15,927	16,377	16,680	15,641	17,131	16,715	Ajmer.
1,02,020	3,16,000	2,47,340	1,38,400	1,40,940	1,40,137	2,04,657	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	Andamans.
67,950	67,380	60,920	63,370	73,550	71,238	76,290	66,338	59,339	61,424	80,669	1,37,486	Forest School.
29,950	31,970	33,950	33,970	33,980	33,991	33,730	33,985	33,935	28,229	30,044	30,389	Forest Surveys (Imperial).
59,28,610	65,41,690	65,49,690	66,00,000	72,42,720	70,36,028	73,17,154	77,37,338	86,40,126	90,77,954	98,65,826	95,92,957	Total.
14,45,610	15,34,300	15,72,850	15,94,670	16,53,530	17,15,431	17,09,554	18,35,552	17,50,930	19,86,098	22,66,602	24,80,660	Madras.
19,58,390	19,69,160	20,73,190	18,39,250	21,28,430	21,08,581	17,19,680	16,76,441	17,75,937	19,03,804	21,26,093	19,90,183	Bombay.
93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,800	Grand Total.

charges, and undistributable and petty local items.

PLUS.

—77,720	—74,860	—65,170	—67,920	—90,460	—81,115	—76,056	—81,358	—81,890	—79,290	—76,512	—95,472	Imperial.*
4,52,610	6,80,810	5,35,840	4,85,990	5,93,700	6,62,533	6,35,106	6,18,233	3,62,015	4,78,883	5,25,033	4,32,473	Bengal.
6,58,480	5,38,420	4,68,870	5,96,090	6,72,360	6,02,024	7,06,769	10,11,326	11,99,008	10,05,735	10,28,246	11,96,013	United Provinces.
3,36,080	3,84,420	2,96,830	6,19,010	1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,381	Punjab.
20,56,810	23,14,980	26,82,090	26,93,390	28,03,760	30,18,597	21,80,017	21,68,849	28,92,850	34,79,034	40,72,354	34,29,018	Burma (Lower).
17,05,420	19,35,150	23,36,560	32,31,310	25,60,8-0	23,81,130	10,47,464	16,79,941	20,23,281	20,33,798	23,19,452	27,23,748	Burma (Upper).
1,38,890	1,54,430	95,990	92,870	2,10,960	2,01,549	1,83,851	2,52,701	2,50,248	2,12,021	5,12,186	6,12,732	Eastern Bengal and Assam.
2,93,430	98,280	14,910	3,25,540	21,670	99,748	3,78,212	4,27,110	7,17,066	6,92,844	11,41,978	10,58,281	Central Provinces and Berar.
49,410	21,370	43,890	74,970	88,190	66,691	87,909	1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	Coorg.
...	...	..	..	...	...	—6,498	47,038	41,230	16,033	53,271	89,564	North-West Frontier Province.
—26,840	—14,310	—12,290	—12,840	—11,620	—12,298	—9,768	—3,904	—3,334	—2,117	—4,262	—5,127	Baluchistan.
—90	—9,640	870	—1,880	—5,030	—6,136	—9,062	—6,641	—2,796	1,656	—2,129	1,620	Ajmer.
30,100	45,770	1,86,370	91,060	1,19,660	1,37,749	62,736	44,333	1,66,260	2,78,385	2,46,526	3,11,891	Andamans.
—63,640	—64,530	—58,030	—61,010	—70,340	—67,541	—72,746	—63,086	—5[illegible],301	—57,867	—77,589	— 1,32,907	Forest School.
—29,440	—31,570	—33,730	—33,680	—33,560	—33,664	—33,257	—30,951	—33,504	—28,229	—30,044	—30,389	Forest Surveys (Imperial).
55,23,530	59,78,780	64,92,650	80,32,850	70,49,400	74,32,766	55,83,402	67,91,227	81,67,355	91,02,222	1,03,56,170	1,01,85,379	Total.
6,64,960	7,69,030	5,63,640	5,15,850	6,48,760	6,24,739	8,33,876	7,78,267	9,06,797	8,13,118	7,01,002	8,10,009	Madras.
15,78,280	10,63,550	5,43,470	4,55,900	2,86,770	5,52,918	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	Bombay.
77,66,770	78,11,360	75,99,760	90,04,600	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,686	Grand Total.

charges, and undistributable and petty local items.

APPENDIX XXIV.

[*Vide* paragraph 44.]

Exports of Forest Produce.

Articles of Forest Produce	Quantity in tons of 20 cwt. In the case of teak, cubic tons.		Valuation at port of shipment in 1906-07.	
	Average of 5 years 1900-01 to 1905-06.	In 1906-07.	Total.	Per ton.
1	2	3	4	5
			R	R
Caoutchouc . . .	168	224	11,18,487	4,993
Lac — Button . .	1,949	1,856	44,45,914	2,395
Lac — Shell .	9,084	10,274	2,89,75,551	2,820
Lac — Stick, seed and other kinds. .	430	1,334	15,76,275	1,181
Sandal, Ebony and other ornamental woods .	(*a*)	(*a*)	11,74,769	—
Cutch and gambier .	3,672	4,868	15,94,903	328
Myrabolams . .	58,664	58,111	43,97,591	75
Teak	58,353	44,202	61,48,291	139
Cardamom . . .	110	90	2,19,172	2,435
Total in 1906-07 . .	...	...	4,96,50,953	...
„ „ 1905-06 . .	...	...	4,69,17,676	...

(*a*) Figures are not available.

CALCUTTA SUPERINTENDENT GOVERNMENT PRINTING INDIA.

REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

FOR THE YEAR

1907-1908

BY

F. BEADON-BRYANT,
INSPECTOR GENERAL OF FORESTS TO THE GOVERNMENT OF INDIA.

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1910

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[Prescribed maximum limit of report—20 pages.]

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REVIEW

OF

FOREST ADMINISTRATION IN BRITISH INDIA

FOR THE YEAR

1907-08.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—Alteration in Area.

[*Vide* Appendices I and II.]

The area under the control of the Forest Department decreased by 2,321* square miles during the year under review. Excluding 1,637 square miles of reserved and 10,341 square miles of protected forest under the control of other departments, the aggregate area of all classes of forest at the close of the year was 237,809 square miles, or 24·2 per cent. of the total area of British India.

2. The most important changes in the different classes of State forests were as follows:—

(i) *Reserved and Leased Forests.*

Additions and exclusions amounting to 2,640 and 2,610 square miles respectively resulted in an increase of the total area from 94,029 square miles at the commencement of the year to 94,059 square miles at its close. Included in these totals are 899 square miles and 743 square miles respectively of leased forests.

(ii) *Protected Forests.*

An apparent decrease of 615 square miles is chiefly due to the inclusion in 1906-07 of 548 square miles under the control of the Revenue Department in Bombay. The area at the close of the year was 8,853 square miles, which includes 439 square miles of leased forests in the Bombay Presidency.

(iii) *Unclassed State Forests and Public Forest Lands.*

The area at the close of the year was 134,897 square miles compared with 136,633 at its commencement, a decrease of 1,736 square miles. Transfer to Reserved forests in Burma and Eastern Bengal and Assam accounts for nearly the whole of this difference.

---

*This includes 1,607 square miles of reserved and 548 square miles of protected forest under the control of the Revenue Department in the Bombay Presidency, incorrectly shown last year as under the control of the Forest Department.

3. The following statement shows the area of the several classes of forest under the control of the Forest Department at the close of the years 1906-07 and 1907-08 :—

Class of Forest.	1906-07.	1907-08.	Difference.
	Sq. miles.	Sq. miles.	Sq. miles.
Reserved forests	93,130*	93,316	+186
Leased „	899	743	—156
Protected „	9,468	8,853	—615
Unclassed State forests and Public Forest lands.	136,633	134,897	—1,736
Total .	240,130	237,809	—2,321

2.—Forest Settlements.

(*Vide* Appendix III.)

4. Progress in Forest Settlements was well maintained, the area finally settled being 1,798 square miles as compared with 1,812 square miles in the previous year, and 707 square miles in 1905-06. The area taken in hand was 3,575 square miles against 2,979 square miles in 1906-07. The approximate cost of settlement operations was ₹48,947 as compared with ₹43,344 in the previous year. In the Central Provinces, although an area of 21,999 square miles has been notified as Reserved forest, it appears from Form 52 that of this area 3,738 square miles have not been fully settled, whilst in Ajmer the 142 square miles of State forest taken up under the Ajmer Forest Regulation have not undergone settlement as in the case of reserves under the Forest Act. A Record of Rights has, however, been drawn up and approved by the Government of India. No settlement operations have been undertaken for the 2,793 square miles of Protected forest in Bengal.

3.—Demarcation.

(*Vide* Appendix IV.)

5. The total length of boundaries at the close of the year was 169,370 miles compared with 171,375 miles at the end of 1906-07. The decrease of 2,005 miles is due to exclusion of the boundaries of the Chamba forests in the Punjab, which have been retroceded to the Raja, and to the omission from the returns for the Central Circle, Bombay, of the boundaries of forests not under the control of the Forest Department. For the same reason, the length of demarcated boundaries fell from 143,256 miles to 141,227 miles, the undemarcated boundary being 10,653 miles compared with 11,869 miles in 1906-07. The length of natural boundaries not requiring demarcation rose from 16,250 miles to 17,490 miles, the principal increases being 555 miles in Burma and 621 miles in Bombay. The new boundaries demarcated aggregate 2,421 miles, or 190 miles and 898 miles less than in 1906-07 and 1905-06 respectively, while the cost was ₹57,096 against ₹33,562 in the previous year. The increase in expenditure is particularly noticeable in Madras where the cost per mile rose from ₹23 in 1906-07 to ₹41 in the year under review; in the United

* Revised figures.

Provinces where R2,157 was expended, although not a single mile of new demarcation is shown as having been done; and in the Central Provinces where 65 miles of new demarcation cost R8,278 compared with 1,106 miles at a cost of R5,321 in 1906-07. It appears probable that much of the expenditure on new work in the United Provinces and the Central Provinces should have been debited against repairs. In Bombay, the cost of new demarcation fell from R13 to R9 per mile. Existing boundaries were repaired to the extent of 55,439 miles at a cost of R89,154 compared with 57,599 miles costing R70,311 in 1906-07. Here again there is a reduction in the amount of work done and an increase in the cost, for which Bombay, Burma and the Central Provinces are chiefly responsible. Of the 10,653 miles of artificial boundaries not demarcated at the close of the year, 3,553 miles are in the Punjab and 5,421 miles in Bombay. The accurate and up to date demarcation of the State forests is of great importance and work in these two provinces is behindhand. Greater progress is promised in Bombay, and an inadequate staff accounts for the delay in the Punjab. In other provinces satisfactory progress is being made.

4.—Forest Surveys.*

[*Vide* Appendices V and VI.]

6. The Forest Survey operations of the year were conducted principally on the scale of 2″ to a mile instead of as heretofore on the 4″ scale. The work was carried out by the various Topographical parties in whose sphere of operations the forests lay.

7. The following forest areas were topographically surveyed during the year :—

Presidency.	1″=1 mile.	2″=1 mile.	4″=1 mile.	Total.	Remarks.
Bengal	(*a*) 43	2,084·00	4·50	2,131·50	(*a*) Baluchistan.
Madras	...	35·50	39·00	74·50	
Bombay	...	556·25	...	556·25	
Total square miles .	43	2,675·75	43·50	2,762·25	

The entire cost on the above surveys was borne by the Survey of India.

8. Details of surveys carried out in the various Provinces are given in the following paragraphs :—

Bengal.—The completion of the survey of the lower Sunderbans on the 2″ scale was effected, 1,257 linear miles being traversed and surveyed in detail, comprising 947 square miles of upland and 310 of water, and mapped in 41 sheets.

Punjab.—No. 14 Party surveyed the Kala Chitta reserved forest, as well as various areas of unclassed forest under the Forest Department and under the Deputy Commissioner of Attock, comprising an area of 4 square miles, on the 2″ scale.

North-West Frontier Province.—The Khwarra protected forests in the Peshawar district and the Zira reserve in the Kohat district were surveyed on the 2″ scale by No. 14 Party.

Baluchistan.—The Gadbar reserve and part of the Girgi reserve were surveyed on the 1″ scale by No. 15 Party, the former amounting to 34 square miles and the latter to 9 square miles.

*Contributed by the Superintendent, Forest Surveys.

Central Provinces (*Berar Circle*).—No. 2 Party surveyed an area of about 57 square miles of forests on the 2″ scale, and the boundaries of this area, approximating 286 miles, were traversed.

Burma (*Northern Circle*).—No. 10 Party continued the survey of the reserves situated on the western border of the Mu division and an area of 232 square miles was completed on the 2″ scale.

Burma (*Southern Circle*).—No. 3 Party made no special surveys for the Forest Department, but in the course of its ordinary operations surveyed 275 square miles of reserved forests on the 2″ scale in the Pakokku district, Yaw Forest division. Similarly, No. 10 Party surveyed 219 square miles of reserved forests in the Ruby Mines district, also 4·5 square miles on the 4″ scale in the Pinkan reserve. No surveys of forests in this circle are included in the programme of the Survey of India for 1908-09.

Bombay Presidency (*Central Circle*).—No. 17 Party surveyed an area of 555 square miles falling within the taluks of the West Khandesh district, together with an additional area of 1·25 square miles in the East Khandesh district, on the 2″ scale. In the Shirpur, Shahada, Taloda and Akhrani ranges of the West Khandesh district, 423 linear miles of forest boundary were traversed on the 4″ scale.

Madras Presidency (*Northern Circle*).—No. 19 Party finished the 4″ forest survey of the Ganjam district with an area of 39 square miles, thereby completing all the work required to be done by the Forest Department on that scale.

Madras Presidency (*Southern Circle*).—In South Canara, the same party traversed 23 linear miles of forest boundaries ; some 40 linear miles of undemarcated boundary still remain to be traversed. In South Malabar, the external boundaries of several reserves were traversed, and reserves with an aggregate area of 96 square miles were surveyed on the 2″ scale. In North Malabar, the following reserves were surveyed on the 2″ scale :—Edavankam, Kotiyur, Kambanmalai and Huntley. In North Coimbatore, one newly demarcated forest boundary (Attikan Estate) was surveyed by a Surveyor lent to the Forest Department. In the Nilgiris, 2 square miles of the Murkurti peak reserve were surveyed on the 2″ scale.

Coorg.—No. 19 Party, in the course of its topographical survey of the Madras Presidency, surveyed 40 square miles of the Ghat forests on the 2″ scale. A triangulator and a traverser were also employed in Coorg, and nearly the whole of the province was triangulated in preparation for the detail survey which will be commenced next year. The survey will be on the 2″ scale and, being part of the regular survey programme, its cost will be borne by the Survey of India.

9. During the year under report, 11,177 maps were issued to Forest and other officials and to the public. Last year the number issued amounted to 11,100. Of the above number, 4,017 were coloured maps.

The principal mapping executed during the year comprised the usual 4″ standard sheets of the Forest Surveys, of which 78 were published and 25 were in the press at the close of the year, while 126 were in various stages of progress. These latter include 69 sheets of the second edition of the Kumaun and Garhwal series. Of the working plan maps and other special maps prepared for the use of the Forest Department, 22 were published, 9 were in the press and 37 were being drawn at the close of the year. As there are no maps of the Madras Presidency showing the distribution of forests, a series of special district maps on the 4″ scale was commenced at the request of the Board of Revenue, Madras. These of the five districts South Canara, Coimbatore, Tinnevelly, Madura and Cuddapah were in hand at the close of the year.

The amount realized by the sale of maps and for work done for the Forest Department amounted to ₹2,018 as against ₹1,750 last year. Of this amount ₹1,110 was adjusted by book debit. Besides the head-quarters charges, a sum of ₹6,199 was debited to the Forest Department on account of mapping and publishing charges.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation of Management.

*Working-Plans.**

[*Vide* Appendices VII, VIII and IX.]

10. An area of 2,711 square miles was added to the area to be treated under regular Working-Plans, thus bringing the total area under regular Working-Plans to 45,152 square miles. This increase took place chiefly in Burma, where very satisfactory progress was made. The very large areas in Burma, even of Reserved forests, which still remain unregulated by Working-Plans point to the advisability of adopting more expeditious methods.

In the Bengal Presidency, Working-Plans for 1,607 square miles were sanctioned and plans for 4,539 square miles were in course of compilation at the close of the year.

In the Madras Presidency also, good progress is shown and Working-Plans for 604 square miles were sanctioned; plans for 4,535 square miles were under preparation.

In the Bombay Presidency, plans for 500 square miles received the sanction of the Local Government and plans for 842 square miles were in course of preparation.

At the close of the year, the area under the control of the Forest Department still remaining to be brought under Working-Plans stood at 182,741 square miles. Of this, the Bengal, Madras and Bombay Presidencies contributed 168,785, 7,843 and 6,113 square miles respectively; but much of these large areas consists of Unclassed forest for which Working-Plans are not required.

11. The following figures show the total areas under Working-Plans at the close of the year:—

	At commencement of the year. Square miles.	Added during the year. Square miles.	Total. Square miles.
Bengal . . .	30,218	1,607	31,825
Madras . . .	6,625	604	7,229
Bombay . . .	5,598	500	6,098
Total in 1907-08 . .	42,441†	2,711	45,152
„ „ 1906-07 . .	41,586	882	42,468

2.—Communications and Buildings.

[*Vide* Appendix X.]

(*a*) *Roads and Bridges.*

12. The total expenditure on communications rose from R3,90,076 in 1906-07 to R5,49,631 in the year under review, an increase of R1,59,555. Rupees 3,48,394 were on account of new work and R2,01,237 for repairs, as compared with R1,96,738 and R1,93,338 respectively in the previous year. These

* Communicated by the Imperial Superintendent of Working-Plans.

† Revised figures.

figures constitute a record and it is interesting to compare them with those for 1897-98, namely ; R80,573 on new work and R92,387 on repairs, showing how rapidly the work of opening out the forests is expanding. As the more accessible forests become depleted of the mature timber they contain, improved communications are required to facilitate the exploitation of the more distant ones; it is evident that considerable progress in this direction is now being made.

(*b*) *Buildings.*

13. The total amount expended on buildings was R6,45,500 or R1,21,752 more than in the previous year. Of the increase, R1,02,517 was on new work and R19,235 on repairs. In the *United Provinces*, new work cost R32,774 less than in the previous year, which is attributed to curtailment of the building programme in the Western Circle owing to the ravages of famine. In the *Central Provinces*, on the other hand, more work was undertaken in order to provide employment and so mitigate the effect of the prevailing scarcity, with the result that the expenditure increased by R33,271. In the *Punjab*, R27,685 more were spent than in 1906-07, but the greater part of this was for work carried out by the Public Works Department. The expenditure was greater in all the other provinces except the *Andamans* and *Coorg*. The cost of the maintenance of buildings was greater in all the major provinces except *Bengal*, where the amount spent was R1,631 less than in the previous year. Small decreases occurred in *Coorg*, *Baluchistan*, *Ajmer-Merwara* and the *Andamans*. Considerable difficulty was experienced in erecting buildings in remote localities in *Bombay* and *Burma*, but notwithstanding this good progress was made both in respect of rest-houses and of quarters for the staff. More attention was paid to the suitable housing of the subordinate staff in all provinces, and this is an important feature of a satisfactory year's work.

(*c*) *Miscellaneous Works.*

14. The expenditure under this head amounted to R1,75,692, being an increase of R93,603 over that in the previous year. The work includes tanks, wells, bunds in torrent beds, fences, ditches, the clearing of compounds and camping grounds and other miscellaneous items. The greatest increase was in the *Central Provinces* where the policy already alluded to was fully taken advantage of, with the result that 28 new tanks and 76 wells were completed and others were well advanced. The expenditure on these and other works amounted to R1,15,529 or R84,453 more than in 1906-07. Of the other provinces, small decreases in the expenditure occurred only in the *Punjab*, *Coorg* and *Bombay*, while *Burma* and *Eastern Bengal and Assam* show increases of R4,060 and R3,288 respectively.

3.—Protection of Forests.

(*a*) *General Protection.*

(*Vide* Appendices XI and XII.)

15. The number of breaches of the forest laws decided by the courts and compounded shows an increase, the total being 58,831 compared with 57,858 in the previous year and 56,544 the average of the three years 1904-05 to 1906-07. The difference of 973 cases is made up of a decrease of 1,628 cases decided by the courts and an increase of 2,601 cases compounded. As regards cases decided

by the courts, *Madras*, *Bombay* and *Burma* show decreases of 773, 657 and 347 cases respectively; there was little change in the figures for other provinces. Compounded cases increased by 203 in *Bengal*, 901 in the *Punjab*, 759 in the *Central Provinces*, 164 in the *North-West Frontier Province*, 219 in *Ajmer* and 747 in *Madras*, while the number of such cases in *Bombay* was less by 526 than in the previous year. The most noticeable increases in the total number of both classes of cases were 957 in the *Punjab*, 762 in the *Central Provinces* and 262 in *Ajmer*; decreases of 1,183 and 320 respectively occurred in *Bombay* and *Burma*. Undetected cases increased by 282 to a total of 7,593, of which rather more than half were on account of injury to the forests by fire. The latter class of offences increased by 476, which more than counterbalance the decreases under all other heads. In *Bombay*, the number of undetected cases decreased by 689, but in other provinces increases were general, the principal ones being 268 in the *Punjab* and 387 in *Madras*.

16. The figures in the preceding paragraph refer only to cases disposed of or undetected. The forest offences reported during the year under review (including undetected cases and those written off or not proceeded with) compare with the average of the three preceding years as follows :—

	Average 1904-05 to 1906-07.	In 1907-08.
Injury by fire	4,152	4,679
Unauthorized felling or appropriation of forest produce . . .	33,358	35,470
Unauthorized grazing . . .	23,921	25,016
Other offences . . .	4,781	4,528
TOTAL .	66,212	69,693

The considerable increase in practically all provinces except *Bombay* is attributed generally to the unfavourable season or to the increased vigilance of the protective staff. The former cause was the most important factor in the year under review, as the scarcity in India was general. The abuse of temporary privileges, granted with a view to mitigating its effects, resulted in many offences, especially in the *Punjab* and in the *Central Provinces*. The insufficient supply of fodder also accounts for much illicit grazing, and for the numerous cases of forests being set fire to in the hope of inducing a further growth of grass. It is said that in *Bombay* only a small proportion of the offences committed are reported so that fluctuations in the figures are to be expected. At the same time, but for the large reduction in the number of cases reported in that Presidency, the total increase would have been even greater than it was. Some 2,300 cases were withdrawn or not proceeded with and 7,000 remained pending at the close of the year as compared with 6,084 at its commencement.

(*b*) *Protection from Fire.*

[*Vide* Appendix XIII.]

17. The area under systematic fire-protection continues to extend and amounted in the year under review to 45,695 square miles or 48·8 per cent. of the total area of Reserved forests, being 1,252 square miles greater than in the previous year. The only province in which there was a decrease was *Burma*, where long continued fire-protection has proved harmful, and where selected

areas, previously under protection, were abandoned with a view to ascertaining the effect on the natural reproduction of teak. The area successfully protected rose by 738 square miles to 42,577 square miles, but the percentage of success to the area attempted fell from 94·2 to 93·2. The results were less favourable than in 1906-07 in all provinces except *Bombay*, where the percentage of success rose from 86·2 to 92·7. The unfavourable results must be attributed to the extreme dryness of the season, accentuated by the admission to the reserves of large numbers of people who were granted the special privilege of collecting produce or grass or of free grazing for cattle in order to mitigate the effects of the prevailing scarcity. The privileges were in many cases abused and numerous cases of incendiarism occurred, the forest in many cases being set fire to in order to induce a further growth of grass. In the *North-West Frontier Province*, the area burnt amounted to 42·35 per cent. of that attempted and so large was the number of fires intentionally caused that the introduction of a scheme of punitive closure is under consideration. A dry year must necessarily adversely affect the results of fire-protective measures, because not only is the period during which the forests are liable to be burnt longer, but fires are more fierce and their extinction and control more difficult. If, in addition, serious scarcity prevails and the reserves are thrown open to the free collection of grass and edible products, the difficulties of the protective staff are still further accentuated. In view of the circumstances of the year, the general results cannot be regarded as unsatisfactory. The improvement in *Bombay* would have been noteworthy under any circumstances but is especially so in a very unfavourable year: it must be attributed to the consistent policy of the Government and to the personal interest taken by Divisional Officers.

18. The results of the year under review appear, and are compared with those of the previous quinquennium, in the following statement:—

Province.	Area in square miles.		Percentage of forests under fire-protection to total area of reserves.	Percentage of failures to area under protection.	
	Attempted.	Protected.		Average of past five years to 1906-07.	1907-08.
Bengal	1,888	1,795	44·5	2·5	4·9
United Provinces	3,203	2,859	78·3	2·0	10·7
Punjab	950	923	43·6	1·7	2·8
Burma	7,526	7,159	32·9	10·3	4·9
Eastern Bengal and Assam	3,255	3,167	49·6	0·8	2·7
Central Provinces	10,815	10,003	49·1	3·1	7·5
Coorg	208	205	40·0	1·1	1·4
North-West Frontier Province	85	49	36·0	4·3	42·4
Ajmer	142	142*	100·0	·8	0·1
Total Bengal	28,072	26,302	44·7	5·1	6·3
„ Madras	7,554	6,945	40·7	6·9	8·1
„ Bombay	10,069	9,330	82·1	12·3	7·3
Grand Total 1907-08	45,695	42,577	48·8	7·1	6·8
Grand Total 1906-07	44,443	41,839	47·2	7·5	5·8

*Only 76 acres were burnt in Ajmer.

19. The classification of fires according to their origin is given in Appendix XIII. The total number of forest fires was 5,201, or 809 more than in the

previous year. The increase was general in all provinces except *Bombay*, where there was a reduction of 283. The most notable increases were 358 fires due to the carelessness of outsiders or to unknown causes and 248 due to intention or malice. Of the former, the *Punjab* accounts for an increase of 193, *Madras* 213, the *Central Provinces* 70 and the *North-West Frontier Province* 41, while in *Bombay* 323 less than in the previous year occurred. Of the latter, 114 were in the *North-West Frontier Province* and 70 in *Bombay*, only *Burma* and *Madras* showing small decreases in cases of this class.

(c) *Protection from Cattle.*

(*Vide* Appendices XIV and XV.)

20. The area closed to grazing during the whole year was 39,079 square miles to all animals and 20,639 square miles to browsers only, or 16·4 and 8·7 per cent. of the total area under the control of the Forest Department. These areas were about 500 square miles less and 1,000 square miles more, respectively, than in the previous year. In addition, some 7,673 square miles were closed to all animals and 292 square miles to browsers during a part of the year, while goats were only admitted to 649 square miles in Madras. As the year was one of general scarcity, considerable areas usually closed were thrown open in many provinces, either for grazing or the extraction of fodder, but this being a special concession, such areas are generally included in those shown as closed.

21. The total number of cattle admitted to graze in the Government forests was over 15 millions, of which nearly 5 millions were browsers such as goats, sheep and camels.

The following statement shows the details for the last two years, and the great increase in the number of cattle admitted to pasturage during the pleasure of Government or otherwise than under settlement is some indication of the concessions granted to the agricultural population :—

	1906-07.					1907-08.				
	At full rates.	At privileged rates.	By right, under settlement.	During pleasure of Government or otherwise than under settlement.	Total.	At full rates.	At privileged rates.	By right under settlement.	During pleasure of Government or otherwise than under settlement.	TOTAL.
Bengal	4,490,712	1,546,208	2,153,805	583,720	(a) 8,774,445	3,879,475	1,538,159	2,167,840	1,515,349	(a) 9,100,843
Madras	3,528,140	150,637	8,875	20,273	3,707,925	3,942,094	54,351	11,119	36,961	4,044,525
Bombay	103,008	808,252	49,171	334,534	(b) 1,294,965	117,322	916,663	37,575	339,678	(c) 1,930,697
TOTAL	8,121,860	2,505,097	2,211,851	938,527	13,777,335	7,938,891	2,509,173	2,216,534	1,891,988	15,076,065

(*a*) Excludes cattle grazing in unclassed forests in Burma and the Andamans, no figures being available.

(*b*) Excludes the Poona and Satara divisions for which figures are not available.

(*c*) Includes 519,459 cattle, the estimated figures for the Nasik, Poona and Satara divisions, of which details are not available.

22. The following statement gives the number of cattle and browsers admitted to pasturage per square mile of forest open to each class of animal. For purposes of comparison similar figures for 1898-99 (the first year for which complete figures are available) are also shown :—

Province.	1907-08.						1898-99.					
	Horned and other cattle except browsers.			Browsers.			Horned and other cattle except browsers.			Browsers.		
	No.	Square miles open.	No. per square mile.	No.	Square miles open.	No. per square mile.	No.	Square miles open.	No. per square mile.	No.	Square miles open.	No. per square mile.
Bengal (*a*) .	297,187	1,617	183·8	37,713	1,224	30·8	403,327	6,271	64·3	72,254	5,952	12·1
United Provinces.	651,699	2,323	280·3	220,615	1,654	133·4	473,160	12,282	207·4	161,458	1,667	96·9
Punjab (*b*) .	907,188	8,690	104·4	1,328,016	7,807	170·1	906,080	6,819	132·9	1,189,274	6,003	198·1
Burma . .	198,046	4,258	43·7	170	4,173	...	35,767	2,223	16·1	25	2,178	...
Eastern Bengal and Assam (*c*).	589,609	24,434	24·1	72,507	23,414	3·1	216,939	17,631	12·3	14,394	16,701	0·9
Central Provinces including Berar.	3,915,358	19,006	206·0	780,259	11,039	70·7	2,640,823	19,615	134·6	468,119	12,764	36·7
Coorg . .	4,463	337	13·2	...	337	...	10,299	736	14·0	...	736	...
North-West Frontier Province.	52,983	195	271·7	22	100	0·2	Included in the Punjab.					
Ajmer . .	17,937	134	133·9	...	6	...	75,482	143	527·8	427	...	...
Baluchistan .	5,051	71	71·1	22,600	63	358·7	2,799	60	46·6	17,358	60	289·3
Total Bengal	6,638,921	61,115	108·6	2,461,902	49,817	49·4	4,764,676	55,780	85·4	1,923,309	46,061	41·8
,, Madras	1,914,632	17,447	109·7	2,129,893	(*e*) 16,623	128·1	1,394,875	17,770	78·5	1,223,949	15,716	77·9
,, Bombay	(*d*) 1,724,442	10,777	160·0	206,255	2,255	91·5	1,484,618	12,192	121·8	725,930	6,683	108·6
Grand Total	10,277,995	89,339	115·0	4,798,050	68,700	69·8	7,644,169	85,742	89·2	3,873,188	68,460	56·6

The area open to browsers is included in that open to all animals.

The unclassed forests of Burma (107,597 square miles) and the Andamans (1,794 square miles) have been omitted from this statement because the number of cattle grazing in them is not known. They are open to unrestricted grazing.

(*a*) Figures for 1898-99 include those for the area now known as Eastern Bengal.

(*b*) Figures for 1898-99 include those for what is now the North-West Frontier Province.

(*c*) Figures for 1898-99 are for Assam only.

(*d*) Includes browsers in the Nasik, Poona and Satara divisions for which details are not available.

(*e*) Goats were excluded from all except 649 square miles.

It thus appears that in nine years the average number of browsers admitted to each square mile of open forest has increased from 57 to 70 and the number of cattle of other descriptions from 89 to 115. Admitting that 1907-08 was an exceptional year, the increasing incidence of grazing is a matter of the utmost importance and gives cause for anxiety because of the impossibility of regenerating forests heavily grazed over. Much attention is being devoted to this question which will be further discussed under Silviculture : but to properly understand the conditions in the different provinces it is necessary to

know the percentage of the forest area in which grazing is permitted. This appears in the following statement :—

Province.	1907-08.			1898-99.		
	Total area.	Open to horned cattle.	Open to browsers.	Total area.	Open to horned cattle.	Open to browsers
	sq. m.	per cent.	per cent.	sq. m.	per cent.	per cent.
Bengal	7,028	23·0	17·4	(*a*) 13,730	45·7	43·4
United Provinces . .	4,163	55·8	39·7	4,078	56·0	40·9
Punjab	9,139	95·1	85·4	(*b*) 7,484	91·1	80·2
Burma	(*c*) 22,858	18·6	18·3	(*d*) 15,667	14·2	13·9
Eastern Bengal and Assam .	(*e*) 29,225	83·8	80·1	(*f*) 20,210	87·2	82·6
Central Provinces including Berar.	22,002	86·4	50·2	23,290	84·2	54·8
Coorg	520	64·8	64·8	895	82·2	82·2
North-West Frontier Province.	236	82·6	42·4	Included under the Punjab.		
Ajmer	148	90·5	1·4	149	96·0	...
Baluchistan . . .	280	25·4	22·5	205	29·5	29·3
Andamans . . .	159	...	...	156	100·0	100·0
Total Bengal . . .	95,758	63·8	52·0	85,864	65·1	53·8
„ Madras . . .	19,607	89·0	(*g*) 84·8	19,594	90·7	80·2
„ Bombay . . .	13,053	82·6	17·3	14,942	81·6	44·7
Grand Total . .	128,418	69·6	53·5	120,400	71·3	57·0

The areas are those under the control of the Forest Department.

(*a*) Includes the area now included in Eastern Bengal and Assam.

(*b*) Includes the present North-West Frontier Province.

(*c*) Excluding 107,597 square miles of unclassed forest open to grazing, as the number of cattle is not known.

(*d*) Excluding unclassed forests for which no details are available.

(*e*) Includes 22,675 square miles of unclassed forests.

(*f*) For Assam only.

(*g*) Applies to sheep. Goats were admitted to 649 square miles only, or 3·3 per cent. of the total forest area.

The above figures show that the incidence of grazing and the area open differ greatly in the various provinces, in most of which the more accessible forests are undoubtedly heavily grazed over. Owing to the comparatively recent partition of *Bengal*, that province and *Assam* may be considered together. Since 1898-99 the total area of forests, the percentage open to cattle and the

number of cattle and browsers per square mile have all increased, but the average incidence is still light. In the *United Provinces*, there has been little change in the total area of forests or in the percentage open, but the number of both cattle and browsers admitted is much greater, the incidence now being very heavy, *viz.*, 414 per square mile or an average of about one head for every $1\frac{1}{2}$ acres in the areas open to both cattle and browsers. The *Punjab* is the only province in which the number of browsers exceeds the number of other cattle. The incidence of grazing per square mile, though less than in 1898-99, is still very high and only 15 per cent. of the total area is closed to browsers and 5 per cent. to cattle. Under these circumstances, satisfactory natural regeneration of most of the forests would appear to be practically impossible. In *Burma*, a few of the reserves are overgrazed, but the question is of little importance in most of them. Figures for the unclassed forests are not available, but many of them are heavily grazed over. In the *Central Provinces*, the total incidence is 277 head per square mile in areas to which both cattle and browsers are admitted, and the percentage of forest open is very high; but conditions are more favourable as regards browsers than in the Punjab. It appears impossible for forest growth to continue on the area open to grazing in *Baluchistan* where, out of a total of 430 head admitted per square mile, 359 are browsers.

In *Madras*, the grazing question is a difficult one and a stricter regulation appears to be necessary if the very existence of many of the forests is not to be endangered. The increase during the last nine years in the number of browsers admitted per square mile is 48 and of cattle 31. Goats are, however, admitted to only a comparatively small area and their exclusion will prevent much damage.

In *Bombay*, the principal change is the considerable decrease in the number of browsers and in the area to which these animals are admitted; but the figures for 1907-08 are only approximate, as details of the various kinds of animals are not fully available.

Excluding the Southern Circle in the *Central Provinces*, for which no figures are given in the report, the number of cattle impounded during the year was 447,142, of which 191,039 were in Madras, 193,719 in Bombay and 30,840 in the Punjab. In the previous year the number was 517,116. The total revenue derived from grazing and from fodder grass removed by purchasers was ₹23,85,003, while ₹18,85,296 is the estimated value of the grazing and grass conceded free or at reduced rates.

(*d*) *Protection against injury from natural causes.*

23. The most serious of the climatic influences from which damage to forests results are frost, drought and wind, while extensive injury is also caused by insects, wild animals, climbers, fungi and parasitic plants. In the year under review, damage by drought was particularly noticeable, especially in the United Provinces where the vitality of the trees had been reduced by a series of dry years and enormous numbers died. Many others were so seriously injured that they succumbed to the effects of the winter frosts which, however, were not unusually severe. Precautions can to a certain extent be taken against frost and wind by exercising care in opening out the cover and in arranging the fellings, but measures against drought are practically impossible except over such limited areas as can be artificially irrigated. The ravages of

insects seem to have been accentuated by the unusual dryness of the year, but some of the remedial measures undertaken showed good results. The study of injurious fungi has not yet received the amount of attention that has been devoted to insect pests, in the investigation of which considerable progress has been made by the Imperial Forest Zoologist; the damage done in our Indian forests by fungoid growths is perhaps not less than that caused by insects, and the appointment of a Forest Mycologist will certainly be advisable in the near future.

4.—Silviculture.

(*a*) *Natural Reproduction.*

24. The importance of this subject cannot be overestimated, as the future existence of the vast majority of the forests in India must depend on regeneration being effected by natural means. Speaking generally, it may be said that in most of our Indian forests that are under systematic treatment, natural reproduction of the more important species is fairly satisfactory, and often excellent. An exception must be made in the case of the important moist teak forests in Burma, where natural reproduction of teak is insufficient; and also as regards sal in some of the fire-protected forests of Bengal and the Garo Hills. Much attention is being paid to the study of natural reproduction, and wide-spread experiments are in progress with a view to determining the conditions most favourable for the germination of seed and the production of seedlings, how these conditions can be brought about and, still more important, what protection and assistance must be afforded to the seedlings to enable them to develop and eventually become trees. The problem is complicated by the varying effect of fire-protection in different localities and on different species as well as by the necessity for providing grazing in the forests for large numbers of cattle. There can be no doubt that grazing is incompatible with the regeneration of the forests in areas heavily grazed over. The increase in the number of cattle allowed to graze in the forests during the last 10 years has already been referred to and, although much attention has been devoted to this subject, no practical scheme for providing all the grazing facilities required and at the same time regenerating the forests has yet been evolved.

25. The following are brief abstracts from the Provincial reports:—

Bengal.—Seedlings from the generally profuse crop of sal seed produced in 1907 did remarkably well until January 1908 or even later, and, in spite of the exceptional drought, it appears probable that in most places a satisfactory proportion survived until the rains of 1908. The crop of sal seed during the year under review was a failure, except in a few localities. Observations during the year tend to support the remarks made last year to the effect that there is no reason to believe that fire could anywhere be used as a cheap and effective agent for improving the reproduction of sal and that this can be better effected by frequently repeated cleanings and weedings of self-sown seedlings. Coppice reproduction was excellent.

United Provinces.—The sal seed crop of 1907 was very uneven, being good in the Eastern and bad in the Western Circle. Natural reproduction was unsatisfactory owing to the drought and extensive fires which caused the mortality in seedlings of all species, up to two or three years of age, to be exceptionally great. Seasons of severe drought are, however, frequently followed by a remarkably good seed year and this is being borne out in the present instance, two or three of the oaks (*Q. semicarpifolia* and *Q. dilatata*) having already borne heavy crops of seed since the break of the rains. The conifers also are reported to be showing signs of a general heavy seeding and it is hoped the sal will follow suit. Shisham (*Dalbergia Sissu*) and khair (*Acacia catechu*) reproduce themselves freely from seed except where grazing and fire render this impossible. Reproduction by coppice was also adversely affected by the

drought. The shoots of the year were poor and in Oudh many shoots of the previous year died.

Punjab.—The year was a bad one for the successful germination of all species on account of the hot dry summer, apart from the amount of seed produced which, for all species, was generally small. Evidence continues to accumulate as to the incompatibility of the grazing of sheep and goats, as carried on in most forests, with the regeneration of the forests, which appears to be in an unsatisfactory state. Much attention is being devoted to this subject, but no definite pronouncement is yet possible as to the incidence of grazing per acre compatible with natural reproduction.

Burma.—Practically nothing new regarding the natural regeneration of teak was recorded during the year, but various experiments were continued and protection from fire was abandoned over considerable areas with a view to watching the effects on natural reproduction. The burning over of areas in the Katha division where the bamboos (*Cephalostachyum pergracile* and *Dendrocalamus membranaceus*) had flowered has shown that it is possible, in such localities, to establish a sufficient quantity of teak over extensive areas at comparatively small expense and that there is, in the Katha district at any rate, no necessity to supplement the burning by any artificial sowings. Such operations must, however, be followed by periodical cleanings and improvement fellings to the extent which experience shows to be necessary. Further countings were made in the Tharrawaddy division which tend to confirm the contention that the reproduction of teak is adversely affected by fire-protection. On an area fire-protected for 20 years, that in 1885 contained 1,296 stems under 1′ in diameter per 100 acres, only 375 can now be found and all are over 18″ girth. There are no small trees between 3″ and 18″ girth. Small seedlings were plentiful, but 90 per cent. have a root system several years old. A similar plot that has not been brought under fire-protection has no break in the sequence of stems under 1′ in diameter and seedling growth of all sizes is abundant. Another 10-acre plot under protection for 20 years was found rich in teak above 1′ diameter, but contained not a single good stem under that size and none at all under 12″ girth. Several other plots were also examined and in every case the results were the same. The Circle reports generally indicate that the natural regeneration of teak is excellent wherever, from whatever cause, light is admitted freely, but that, unless subsequent operations on an extensive scale are carried out to assist the teak seedlings, no considerable proportion of them can develop.

Eastern Bengal and Assam.—The year under review was not a good one for sal seed. Either the quantity produced was less than usual or the quality of the seed was poor. In some cases heavy storms caused considerable damage. Attention has been drawn to the unsatisfactory condition of sal reproduction in the fire-protected reserves of the Garo Hills division, and the opening out of the cover by the removal of mature trees has not yielded the satisfactory results which have resulted from similar operations in the Nowgong division. In some localities, the removal of inferior species and cleaning of the undergrowth in the previous year have greatly benefited the sal seedlings and this treatment is to be extended to other areas. Unfortunately, the experiments of firing sal areas to ascertain the effect on the reproduction of the species in the low level forests were not carried out. The natural reproduction of *Ficus elastica* in the Lakhimpur forests continues to be unsatisfactory owing to the paucity of seed bearers, many trees having been killed by root-tapping, etc. The reproduction of *Mesua ferrea* was good and the experimental improvement fellings carried out during the previous year have had a very beneficial effect on the natural regeneration of this species.

Central Provinces.—The season was unfavourable for natural reproduction which was somewhat retarded in consequence. The general spread of teak and *Hardwickia binata* continues to be noticed in localities immune from excessive grazing, and the development of the former species has been greatly assisted by cleanings and improvement fellings. The sal seeded unevenly, but the regeneration of this species is reported to be excellent in the fire-protected areas of the Southern Circle. It is also stated that sal derives more benefit from fire-protection than do the inferior species with which it is associated. Other species seeded well and the unfavourable season for growth appears to have stimulated the trees to reproduce themselves; many species of trees show indications that the next seed crop will be an excellent one.

North-West Frontier Province.—The year was exceptionally bad for natural reproduction, but the success attending the coppice operations both in Khanpur and in the Bagnotar forests is satisfactory.

Coorg.—The natural reproduction of *Pterocarpus marsupium* and *Dalbergia latifolia* is satisfactory, but that of teak was poor. An experiment to test the effect of light ground fires

on teak regeneration gave promising results, but the conditions of over-head cover were clearly unsuitable for the development of the seedlings which sprang up and a large proportion of them died during the rains.

Madras.—The short rainfall hampered reproduction in many instances, but, under the circumstances, the reproduction from seed was generally fair and from coppice good, except where protection from fire and grazing was inadequate.

Bombay.—It is satisfactory to learn that natural reproduction of teak in the Thana forests of the Southern Circle is more promising than was formerly reported and that continuous fire-protection in certain localities is resulting in notably increased numbers of seedlings of all species. The Bombay forests appear to reproduce themselves freely and it is stated that, where natural regeneration by seed fails, it is due to the action of man directly or indirectly and not to any lack of reproductive power in the forests themselves. A deficient inundation adversely affected natural regeneration in Sind.

26. It is interesting to compare the reports from the Central Provinces and Eastern Bengal and Assam regarding the effect of fire-protection on the regeneration of sal. In the comparatively dry forests of the former province, fire-protection appears to yield eminently satisfactory results; but in the moister forests of Eastern Bengal and Assam successful protection encourages the undergrowth and inferior species at the expense of the more valuable sal. The Burma reports afford further evidence in support of the contention that in forests treated by the Selection method the natural regeneration of teak is practically absent in areas which have been successfully protected from fire for any considerable period, and it is not improbable that in many localities successful protection will prove to have greatly accentuated the difficulty of obtaining natural regeneration. Extensive experiments are in progress with a view to elucidating the problem, and possibly it may eventually be necessary to restrict fire-protective measures to comparatively dry localities and moister areas in which satisfactory regeneration has been obtained. In the latter case, however, heavy cleanings and improvement fellings will also be required and, owing to the general scarcity of labour, the areas over which this system could be adopted would be a very small proportion of the moister teak forests of the province. Some years must elapse before any definite conclusion can be arrived at, but if, as will probably be the case, it is fully proved that the effect of fire-protection on the natural regeneration of teak is as disastrous as most Forest officers in Burma consider it to be, there can be no question that either the method of treatment must be changed or the greater portion of the moister teak forests must be allowed to burn. It is generally admitted that even in teak forests fire does much damage, but magnificent forests exist which have been burnt annually from time immemorial while, at present, everything points to the conclusion that if fire-protection is continued nothing can prevent the eventual extermination of the teak over enormous areas. The remedy may be found in adopting the Regular method of treatment for the teak forests wherever this is possible.

(*b*) *Artificial Reproduction.*

(*Vide* Appendix XVI.)

27. The area of plantations increased from 134,735 acres to 144,416 acres, which includes 83,171 acres of taungyas. There was a total addition of 14,217 acres, of which 6,211 acres are due to omissions from previous returns and 8,006 acres were plantations newly made; 4,586 acres were abandoned during the year, leaving a net increase of 9,631 acres. The principal increases were 1,131

acres in the *United Provinces*, 1,350 acres in *Burma*, 4,298 acres in the *Central Provinces* and 2,152 acres in *Madras*. The total expenditure on plantations rose from R2,31,036 to R2,36,966, which includes R41,237 on account of the Mergui Rubber plantation and experimental garden in Burma.

28. *Cultural operations* comprise all measures of artificial regeneration not amounting to plantations and are undertaken chiefly for the purpose of introducing valuable species, re-stocking blanks and poorly stocked areas and regenerating coupes after final fellings. Such works are still to a great extent experimental and the procedure adopted varies greatly according to circumstances, many methods intermediate between the broadcast sowing of seed on unprepared ground and the raising of seedlings in nurseries and transplanting them in the forest being employed. The total area operated on amounted to approximately 77,000 acres, of which 38,200 were in Bombay, 29,000 in Burma and nearly 7,000 in Madras.

29. The amount expended on cultural operations was R70,067 compared with R62,925 in 1906-07. Details for the different provinces were :—

	R
Bengal	5,201
United Provinces	4,336
Punjab	5,347
Burma	18,642
Eastern Bengal and Assam	219
Central Provinces	705
Coorg	...
North-West Frontier Province	437
Ajmer	17
Baluchistan	12
Andamans	...
Total Bengal	34,916
Madras	23,940
Bombay	11,211
GRAND TOTAL	70,067

(c) *Operations for the improvement of the growing stock.*

30. These comprise weedings, cleanings and thinnings of natural crops but not of plantations. Also improvement fellings and girdlings, including the cutting back of badly shaped or diseased stems, the opening out of the canopy to facilitate regeneration and the felling or girdling of inferior species to assist more valuable ones. The utilization of the material felled is only occasionally possible and the work generally is quite distinct from exploitation. The circle reports show that some 298,000 acres were worked over at a cost of R68,700, but these figures are incomplete, details for several circles not being available.

31. There can be no question as to the value of these operations, but the extent to which it is possible to carry them out is hopelessly inadequate. To be of real benefit they should be repeated at frequent intervals, especially in localities where fire-protection has benefited the undergrowth or inferior species to a greater extent than the more valuable ones, with the result that artificial assistance must be afforded to the latter if the proportion is to be increased or even maintained. The fact that money spent on properly carried out improvement fellings is of far more benefit than a similar amount spent on plantations is now generally recognised, but badly conducted operations may

result in great damage to the growing stock. Skilled supervision is essential and comparatively few subordinates can be trusted with these important works, and this is one reason why they cannot at present be carried out over much larger areas. In several provinces the scarcity of labour is another contributing cause but every effort should be made to extend the scope of such operations.

(*d*) *Experiments.*

32. The following are brief abstracts of the most important features of Provincial reports regarding the experiments carried out during the year :—

Bengal.—Of 200 mahogany seedlings planted out in the Banpur forest, only 72 were alive at the close of the year. Wattle seed obtained from Naini Tal failed at Kurseong. Some Para rubber trees grown from seed obtained about six years ago are doing fairly well in the Sukna compound, Kurseong Terai; but nearly all the plants put out in the neighbouring forest at about the same time have disappeared in spite of every attention.

United Provinces.—The severe drought or frost killed most of the seedlings of exotic trees recently put out in the forests, but *Eucalyptus globulus* and *Acacia decurrens* are reported to be doing well at moderate elevations in the Naini Tal division. Frost killed all the *lac* tied on by the lessee in the Siwalik division, and he has expressed his intention of abandoning the experiment which, however, will be continued for a time departmentally, although it appears probable that the extremes of temperature are too great for the successful cultivation of *lac*. In the experimental garden at Chorgalia, the formation of *lac* on the infected stems of *arhar* (*Cajanus indicus*) proceeded satisfactorily, but the insects did not spread much to other stems. A large number of the *arhar* plants sown in 1906 died in the hot weather of 1908, although well irrigated, and the experiment tends to show that the *arhar*, on account of its short life, is not a very suitable host plant for *lac*. An experiment that has been proceeding during the last four years with a view to ascertaining the best method of tapping the *chir* pine for resin has shown that channels made diagonally across the fibres yield nearly 20 per cent. more resin than channels parallel with the fibre. In the Satkiana Range of the Eastern Circle 200 acres of open forest have been demarcated for experimental closure to fire and grazing with a view to procuring better natural reproduction of *shisham* and *khair*.

Punjab.—The experiment in Jhelum with *Salix Babylonica* has been abandoned, but continued attention will be paid to *Pinus pinaster* in connection with the afforestation of bare hill sides. A number of new species of Eucalyptus, which have been specially obtained from Tasmania as being likely to suit the climate, are being tried in Simla and extended experiments in fruit growing are also about to be tried. A few sample plots have been established with the object of obtaining information regarding the degree of thinnings desirable and the yield of resin from trees tapped to death. These experiments require to be extended and in some cases more closely supervised before definite results can be expected.

Burma.—Experimental sowing and planting of various species were continued on a small scale; the germination of the seed of *Pterocarpus dalbergioides* (Andamans padouk) appears to have been generally satisfactory. Further sowings of *Cinnamomum camphora* seed obtained from Hong Kong were made in the Northern and Southern Circles, and preliminary arrangements were made for the experimental cultivation of lac, especially on *Schleichera trijuga*. The Mergui rubber plantation was maintained and 2,455 lbs. of dry rubber were collected. The yield of rubber appears to depend to considerable extent on the method of tapping; 280 trees on which half spiral incisions were made yielded 566 lbs. of dry rubber compared with 347 lbs. yielded by 660 trees in which V-shaped incisions were made.

Eastern Bengal and Assam.—Preparations have been made to propagate *lac* on *arhar* (*Cajanus indicus*) plants by sowing up some 20 acres with this species. Two sample plots were selected with a view to obtaining statistics regarding the growth of *Nahor* (*Mesua ferrea*).

Central Provinces.—The silvicultural experiments previously instituted were continued, but have not yet yielded any very definite results. Certain conclusions are indicated which, however, require confirmation before they can be finally accepted. Sowings of *lac* in the Berar Circle were not successful, the failure being attributed to heavy rain after the insects hatched out and to the early cessation of the rains. The Conservator, however, remarks that the

failure is no doubt partly due to the unfavourable season but chiefly to the absence of men experienced in the cultivation of *lac*.

Baluchistan.—The various experiments already instituted with a view to introducing fodder and forest plants were continued. The results so far are not very encouraging; out of 11 varieties tried, only two, *viz.*, *Paspalum dilatatum* and the *Chil*, succeeded.

Madras.—Except in regard to Ceara rubber, teak and *Pterocarpus marsupium* in the Napier's park in Ganjam, Divi Divi (*Cæsalpinia coriaria*) in Nellore and North Arcot, camphor wood in the Nilgiris and *Swietenia Mahogani* and *Hevea Braziliensis* in South Canara, the results of the numerous experiments with exotic and other trees were not encouraging.

Bombay.—The experimental plantations of rubber were extended in some divisions, but, except in South Thana, they do not appear to be very promising. Government are arranging for a special examination and report on the experiments by an expert in rubber cultivation. Attempts to extend the cultivation of *lac* by infecting trees of *Schleichera trijuga* and *Butea frondosa* in North Khandesh were unsuccessful. Certain silvicultural experiments undertaken are as yet inconclusive.

5.—Exploitation.

(*a*) *System of Management.*

33. In the provinces outside the Bombay and Madras Presidencies, the total area for which regular working-plans have been prepared and sanctioned amounted, in the year under review, to 31,825 square miles. This excludes 317 square miles in the Andamans for which a working-plan has been approved but is not yet in operation, and it includes 10,405 square miles of forests which are either unworkable or for which no definite system of working has been prescribed.

The various silvicultural systems in force over this area are summarised in the following table:—

Silvicultural system.	Area in square miles.	Percentage of total area under each silvicultural system.
Method of Clear fellings by compartments	39	·1
Uniform method	177	·5
Group method	75	·2
Selection method	10,335	32·5
Simple coppice	128	·4
Coppice with standards	2,524	7·8
Method of Improvement fellings	8,142	25·5
	(*a*) 10,405	33·0
Total	31,825	100·0

(*a*) Included in the forests for which working-plans have been prepared but not subjected to any definite system of working.

It is thus manifest that the Selection method and the method of Improvement fellings are the systems most widely applied in the provinces outside the Madras and Bombay Presidencies. The wide application of these two systems is due to the fact that some simple systems had to be introduced in order to deal with the large areas of forest which have been taken in hand since the commencement of forest conservancy in India; the Selection system was

found to be the most rational one to adopt under the circumstances and is also the most suitable for the protection of steep hill sides. In a great many cases the forests were already in a semi-ruined condition when taken up, and it was thus necessary to apply nothing more than Improvement fellings in order to enable them to recover from the effects of former overworking and bad treatment.

As time goes on there can be little question that it will be of advantage to introduce, to a much larger degree than has been possible hitherto, some more systematic form of working, for example the Uniform method: this subject, which is one of great importance to the future of silviculture in India, is now receiving the attention of Forest officers and is also under special investigation at the Imperial Forest Research Institute, Dehra Dun.

(*b*) *Agency of Exploitation.*

[*Vide* Appendix XVIII.]

(*i*) *Departmental Agency and* (*ii*) *Purchasers.*

34. The outturn of *timber* rose by nearly $7\frac{1}{2}$ million cubic feet to about $65\frac{1}{8}$ million cubic feet. Of this total, $7\frac{4}{5}$ millions were removed by departmental agency, nearly 53 millions by purchasers, $2\frac{1}{9}$ millions by free grantees and nearly $2\frac{1}{2}$ millions by right or privilege-holders. The policy of still further relieving the Department of timber operations is gradually being given effect to, and there was a net reduction, compared with the previous year, of nearly 900,000 cubic feet in the quantity of timber removed by government agency, notwithstanding that in Madras there was an increase under this head of nearly 350,000 cubic feet. The quantity removed by purchasers and free grantees increased by more than $7\frac{1}{2}$ millions and nearly four-fifths of a million cubic feet respectively. A small net increase in the volume extracted by right-holders resulted from an increase of 300,000 cubic feet in Bombay and decreases in Bengal and Madras.

The outturn of *fuel* was $169\frac{3}{5}$ million cubic feet, or nearly $5\frac{2}{5}$ million cubic feet more than in the previous year. Of this, more than $21\frac{1}{2}$ millions were removed by government agency, 92 millions by purchasers, more than $7\frac{3}{5}$ millions by free grantees and $48\frac{3}{5}$ millions by right or privilege-holders. As compared with the previous year, there was a small decrease in the quantity removed by purchasers, while removals by government agency, free grantees and right-holders increased by more than four-fifths of a million, $1\frac{3}{5}$ millions and more than 3 million cubic feet respectively. In Bombay alone the quantity removed by right-holders increased by more than $3\frac{1}{4}$ million cubic feet.

The number of *bamboos* extracted amounted to nearly $193\frac{1}{2}$ millions or 12 millions more than in the previous year. Removals by government agency amounted to nearly $10\frac{1}{2}$ millions, by purchasers to more than $157\frac{3}{4}$ millions, by free grantees to nearly 3 millions and by right-holders to $22\frac{1}{6}$ millions. The principal changes as compared with the previous year were an increase of $3\frac{3}{5}$ millions by government agency—almost wholly in Madras, a decrease of nearly half a million by purchasers—made up of a decrease of $3\frac{3}{5}$ millions in Bengal and increases of nearly 2 and 1 million respectively in Madras and Bombay, a decrease of more than a quarter of a million by free grantees, and an increase of $9\frac{1}{3}$ million by right-holders; of the latter more than 8 millions occurred in Bombay and nearly $1\frac{1}{3}$ millions in Bengal.

The outturn of *minor produce*, including grass and grazing, increased in value by nearly 5½ lakhs of rupees to a total of nearly 71⅔ lakhs distributed as follows:—Nearly 3⅓ lakhs by government agency, more than 46½ lakhs by purchasers, more than 7⅔ lakhs by free grantees, and more than 13⅘ lakhs by right-holders. Under the first three heads the increases were approximately ⅘ of a lakh, 1⅔ lakhs and 3⅔ lakhs respectively, while the value of the minor produce extracted by right-holders was nearly ⅔ of a lakh less than in the previous year. The large increase in the value of produce granted free was almost entirely in the Bengal Presidency, and the Central Provinces alone accounts for 2½ lakhs.

(iii) *Rights and Privileges.*

35. The material removed from the forests by right and privilege-holders during the last two years was:—

	1906-07.	1907-08.
Timber, cubic feet	2,433,669	2,464,266
Fuel, cubic feet	45,316,957	48,400,846
Bamboos, number	12,830,125	22,160,618
Minor produce, including grass and grazing, value	R14,23,443	13,84,749

Mention has already been made of the greater quantities of timber fuel and bamboos extracted by right-holders in Bombay, and it is probable that the apparent increase is due more to revised estimates than to any actual increase in the amount of produce removed.

(iv) *Free Grants.*

36. The year under review having been one of general scarcity, the amount of forest produce granted free shows a considerable increase.

The following are the figures for the last two years:—

	1906-07.	1907-08.
Timber, cubic feet	1,325,357	2,112,544
Fuel, cubic feet	5,991,867	7,653,314
Bamboos, number	3,222,567	2,987,151
Minor produce, value	R4,05,967	R7,68,135

(c) *Outturn and Sources of Forest Produce.*

(*Vide* Appendix XVII.)

37. The outturn from all classes of forest under the control of the Forest Department, of timber and fuel, bamboos and minor produce is compared with that of the previous year in the following statement:—

Presidency.	Year.	Timber and fuel.	Bamboos.	Minor produce.
		Cubic feet	No.	R
Bengal	1907-08	169,524,073	133,035,771	42,18,119
	1906-07	162,390,630	135,503,416	37,19,998
Madras	1907-08	26,354,690	44,657,836	16,20,999
	1906-07	23,975,356	39,282,182	15,20,606
Bombay	1907-08	39,103,360	15,735,416	13,00,123
	1906-07	35,780,962	6,608,172	13,49,415
Grand Total ...	1907-08	234,982,123	193,427,023	71,39,241
	1906-07	222,146,948	181,393,770	65,90,019

Of the increased output of more than 7 million cubic feet of *timber and fuel* in Bengal, $1\frac{1}{4}$ millions were from reserved forests, more than 1 million from protected forests and $4\frac{4}{5}$ millions from unclassed forests.

As regards *bamboos*, the number extracted naturally fluctuates considerably from year to year, and the increase of 12 millions during the year under review can only be regarded as a partial recovery of the decrease of $28\frac{3}{4}$ millions recorded in the previous year.

The value of the outturn of *minor produce* was ₹5,49,222 greater than in the previous year. Much of this is attributable to increased grazing facilities granted because of the prevailing scarcity.

6.—Exports of Forest Produce.*

(*Vide* Appendix XXIV.)

38. The total value of exports of forest products at ports of shipment amounted to $563\frac{1}{2}$ lakhs of rupees compared with $496\frac{1}{2}$ lakhs in 1906-07, and an average of 469 lakhs for the three preceding years.

The quantity of *caoutchouc* exported fell from 224 tons in 1906-07 to 149 tons in the year under review. There was also a fall in the value from ₹4,993 to ₹3,882 per ton, and this probably accounts, to some extent, for the smaller quantity exported.

The exports of *lac* rose to 18,138 tons compared with 13,464 tons in the previous year, and an average of 12,585 tons during the five years ending with 1906-07. A decline of ₹348 per ton in the average value of the various varieties of lac was more than compensated for by the increased quantity, and the total value of the exports rose by ₹58,32,851 to ₹4,08,30,591. Much attention is now being paid to the cultivation of lac and it is probable that the exports of this article will increase considerably in the near future.

An increase of 16,554 tons in the quantity of *myrabolams* exported, together with a slightly higher market value, resulted in an increase in the total value of the exports from ₹43,97,571 to ₹58,95,246.

The quantity of *teak* exported continued to decline and, in the year under review, amounted only to 39,539 tons, or 4,663 tons less than in 1906-07 and 15,520 tons less than the average for the preceding five years. There was, however, a compensating increase in the value per ton and little change in the total value occurred. Six hundred and fifty tons of specially selected teak squares of large size were supplied to the Admiralty.

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* This subject was dealt with in previous Reviews under Chapter IV.

CHAPTER III.

Financial Results.

[*Vide* Appendices XIX to XXIII.]

39. The following statement shows the Gross Revenue, Expenditure, Surplus and the proportion of Expenditure to Gross Revenue for the last 35 financial years, figures for the individual years of the quinquennium 1903-04 to 1907-08 being also shown separately for purposes of comparison:—

Quinquennial periods.	Gross Revenue. (Average.)	Expenditure. (Average.)	Surplus. (Average.)	Proportion of Expenditure to Gross Revenue.
	₹	₹	₹	Per cent.
1873-74 to 1877-78 . .	67,23,191	44,76,303	22,46,888	66
1878-79 to 1882-83 . .	79,15,956	52,09,538	27,06,418	66
1883-84 to 1887-88 . .	1,10,59,434	71,42,382	39,17,052	64
1888-89 to 1892-93 . .	1,51,86,115	82,61,176	69,24,939	55
1893-94 to 1897-98 . .	1,74,50,655	96,57,496	77,93,159	55
1898-99 to 1902-03 . .	1,90,22,776	1,08,42,872	81,79,904	57
1903-04 to 1907-08 . .	2,50,55,151	1,35,94,021	1,14,61,130	54
Years.	Annual.	Annual.	Annual.	
1903-04	2,22,16,747	1,21,66,993	1,00,49,754	55
1904-05	2,40,29,950	1,29,67,856	1,10,62,094	54
1905-06	2,66,74,593	1,42,58,521	1,24,16,072	53
1906-07	2,64,91,486	1,40,63,800	1,24,27,686	53
1907-08	2,58,62,979	1,45,12,933	1,13,50,046	56

The Gross Revenue was ₹6,28,507 less than in the previous year and the expenditure ₹4,49,133 more, so that the surplus was less by ₹10,77,640.

The above figures for revenue do not include the estimated value of the timber and other produce granted free or at reduced rates, which, during the year under review, amounted to 49½ lakhs of rupees compared with 34 lakhs in the previous year.

40. Decreases in gross receipts occurred in the United Provinces (⅘ lakh), the Punjab (1½ lakhs), Burma (11½ lakhs), the Central Provinces (1⅑ lakhs) and in the Andamans (3⅙ lakhs). The most important increases were in Madras (6 lakhs), Bombay (2¼ lakhs), Bengal (1⅓ lakhs), Eastern Bengal and Assam (1 1/10 lakhs) and the North-West Frontier Province (½ lakh), while smaller increases occurred in Coorg, Ajmer and Baluchistan.

The fall in revenue in the Andamans is due to the termination of the padouk contract and to an almost complete cessation of demand for this timber. The revenue in Burma fluctuates considerably, and the figures suffer by comparison with unusually good results in 1905-06 and 1906-07. The falls in the other provinces are attributed to the larger quantities of produce granted free in consequence of the prevailing scarcity.

The increases in revenue are generally due to an increased demand and, in some cases, to better prices being realized. This does not apply to the North-West Frontier Province, where the increase is due to a change in the system of working and is not likely to be maintained.

The increase in expenditure is chiefly due to the reorganizations of the Imperial Forest Service and to partial or complete reorganizations of certain branches of the Subordinate and Clerical establishments in several provinces; further increases on this account may be expected. The amount expended on the extraction of timber by departmental agency again declined considerably. The principal changes in expenditure were in Bengal ($+\frac{4}{5}$ lakh), United Provinces ($-1\frac{1}{8}$ lakhs), Punjab ($+\frac{1}{3}$ lakh), Burma ($-1_{1}^{1}{}_{2}$ lakhs), Eastern Bengal and Assam ($+_{1}^{9}{}_{0}$ lakh), Central Provinces ($+2\frac{2}{5}$ lakhs), Andamans ($-\frac{2}{3}$ lakh), Madras (+3 lakhs) and Bombay ($-\frac{1}{3}$ lakh).

41. The average net revenue per square mile of land under the control of the Forest Department fell from R52 in 1906-07 to R47 in the year under review. The largest net returns were R636 in the North-West Frontier Province, R326 in Coorg and R292 in the United Provinces; and the smallest R30 in the Punjab and R21 in Eastern Bengal and Assam.

42. The following statement shows the financial results of the working of the forests after deducting capital expenditure not yielding an immediate return :—

	R	R
Gross Revenue		2,58,62,979
Value of produce granted free or at reduced rates		49,53,319
Total value of yield		3,08,16,298
Gross Expenditure	1,45,12,938	
Deduct expenditure not yielding an immediate return :—		
(*a*) Roads and Buildings	12,60,238	
(*b*) Cultural operations	6,54,122	
(*c*) Working-Plans	65,997	
(*d*) Settlements	79,756	
(*e*) Surveys	2,18,915	
(*f*) Demarcation	1,36,369	
TOTAL	24,15,697	
Balance of direct revenue producing expenditure		1,20,97,236
Surplus of revenue over expenditure directly chargeable to Revenue		1,87,19,062

CHAPTER IV.

GENERAL.

1.—Administration.

43. Mr. S. Eardley-Wilmot, C.I.E., resumed the duties of Inspector General of Forests on his return from privilege leave in July 1907. In February 1908, he was deputed to England to represent the Government of India on the Committee appointed by His Majesty's Secretary of State for India to enquire into the system of selecting and training candidates for the Imperial Forest Service. The Committee submitted its report on 9th April and Mr. Eardley-Wilmot returned to India early in May. Mr. W. F. Perrèe, Assistant Inspector General of Forests, carried on the current duties of the Inspector General during Mr. Eardley-Wilmot's absence on deputation.

With the sanction of the Secretary of State three posts of Assistant and Deputy Conservators were added to the Imperial Service cadre in the United Provinces. Proposals for strengthening the controlling staff in other provinces were under the consideration of the Government of India.

Two officers of the Imperial Service retired and one officer died during the year.

Officers on Foreign Service.

44. The following statement shows the number of officers on foreign service in India, in British Colonies and serving under other Governments :—

In India.

Imperial Service.

1. Mr. A. W. Blunt (Central Provinces), Kashmir, reverted in October 1907.
2. „ W. H. Lovegrove (United Provinces), Kashmir from October 1907.
3. „ R. M. Williamson (Central Provinces), Rewah State from October 1907.
4. „ C. G. Trevor (Punjab), Chamba State from April 1908.

Provincial Service.

1. Lala Daulat Ram (Punjab), Kashmir.
2. „ Devi Ditta (Punjab), Jubal State.
3. Rai Bahadur M. Muttannah (Madras), Mysore.
4. Rao Sahib M. Rama Rao (Madras), Travancore.
5. Mr. G. W. Thompson (Madras), Jeypore.
6. Pandit Thakur Das (Punjab), Indore State.
7. Mr. W. G. Gilmore (Central Provinces), Indore State.
8. „ B. Inamati Shama Rao (Central Provinces), Mysore.
9. Bhagawandas Harkisandas Dalal (Bombay), Rajpipla.
10. Mr. A. P. Mudaliar (Bengal), Mysore.
11. Rai Bahadur Keshva Nand (United Provinces), Kashmir.
12. Mr. J. M. Blanchfield (United Provinces), Bundelkhand State (died during the year).

In the Colonies.

Mr. N. C. McLeod (Central Provinces) was permanently transferred for service in Southern Nigeria.

Under other Governments.

Mr. W. F. Lloyd (Bengal), Siam.

Mr. S. A. Wood (Burma), Soudan.

2.—Recruitment, Technical Education and Research.

45. Eleven officers, who had undergone their training partly at Cooper's Hill College and partly at Oxford and had obtained the Diploma of Forestry from the University of Oxford, were appointed Assistant Conservators of Forests and arrived in India at the end of 1907. Three of these were posted to Burma, two each to Madras, Eastern Bengal and Assam and the Central Provinces, and one each to Bengal and the United Provinces.

Nineteen candidates were selected in England by the Secretary of State for training at Oxford for the Indian Forest Service.

46. Mr. H. H. Haines continued to act as Principal of the College and Imperial Silviculturist up to 20th October 1907, when he was relieved by Mr. J. H. Lace. On the transfer of the latter officer as Chief Conservator, Burma, Mr. L. Mercer was appointed Principal from the 26th February 1908. The post of Superintendent of Working-Plans was held by Mr. A. M. F. Caccia throughout the year; he was also appointed Silviculturist from the 26th February 1908. Mr. C. E. C. Fischer was acting Forest Zoologist until the 15th October 1907, when he was relieved by Mr. E. P. Stebbing on his return from leave. Mr. R. S. Troup held the post of Forest Economist up to 15th April 1908, when he proceeded on long leave, being relieved by Mr. A. J. Gibson. Mr. R. S. Hole was Forest Botanist and Mr. Puran Singh continued to act as Forest Chemist.

47. A third year's course of theoretical and practical training was started during the year to qualify selected candidates for direct appointment to the Provincial Service. The class opened on 1st July 1907 with seven students, all in the service of the Government. Two of these students were found unfit to follow the course of instruction and returned to their respective provinces; the other five obtained pass certificates.

48. In July 1907, 114 candidates presented themselves for the College Entrance Examination for admission to the Rangers' course of 1908-10. Of these 63 passed, but only 44 joined the College in April 1908, together with 13 others who were exempted from the necessity of passing the examination. One stipendiary student was discharged from the College and the class was thus reduced to 56 at the close of the year. On the results of the final examination held in March 1908 for the class of Senior students, Higher Standard certificates were granted by the Board of Control to 22 candidates and Lower Standard certificates to seven. Six students failed to obtain any certificate.

49. *Forest Research.*—Much of the time of the Research officers had again to be devoted to the education of the large classes of Forest students at the College, but good progress in research work was made. Details are given in the Progress Report of the Imperial Forest Research Institute for 1907-08: the following brief remarks afford only general information:

Silviculture.—For the greater part of the year the Principal of the Imperial Forest College filled the appointment of Silviculturist and he had little time to devote to research. Enquiries were started with a view to collecting information regarding (*a*) plantations and (*b*) the effects of fire-protection on *Sal* in the moist Terai forests of Bengal and Eastern Bengal and Assam.

Working-Plans.—The Superintendent of Working-Plans commenced the preparation of a note on the exact manner in which investigations should be carried out, and how the collecting and recording of all statistical data should be standardized so that adequate comparison may be possible. A careful enquiry into the Selection system of treatment was taken in hand and

completed shortly after close of the year, and special registers were opened for recording data dealing with measurements in sample plots. The revision of D'Arcy's "Preparation of Forest Working-Plans" was undertaken. A preliminary note on "The development of the *Sal* in volume and in money value" and "A List of Forest technical terms" were published during the year.

Forest Botany.—The two main subjects in which research was carried on were, (*a*) the coppicing of teak and its effect on the vitality and normal development of the tree, and (*b*) the study of the forms of *Grewia*. No definite conclusion can be drawn from such investigations until they have extended over a considerable period. The Botanist was also engaged in preparing a Manual of Botany for the use of students at the College, which was sent to the Press but not published during the year.

Forest Zoology.—Various investigations were carried out in connection with insects injurious to forests, chiefly those infesting the western fringe of the sub-montane *Sal* belt in the United Provinces. A Manual of Forest Zoology was completed and sent to the Press but was not issued until after the close of the year. The following were published:—

(*a*) Forest Bulletin No. 11 on "Some Assam *Sal* insect pests,"

(*b*) A Forest Record on the *Lac* insect (*Tachardia lacca*), and

(*c*) A Pamphlet on the bark-boring beetle attack in the coniferous forests of the Simla catchment area.

The preparation of a sample collection of Indian insects for the instruction of the students of the College was commenced.

Forest Economy.—Investigations were undertaken into the purposes for which different kinds of wood and minor forest produce can be employed, but few were completed and no very definite results were arrived at. The most important enquiries were in connection with the utilization of inferior species for railway sleepers; woods suitable for matches, wood-pulp, tea boxes and opium chests, cricket bats, lead pencils and tobacco pipes. Enquiries regarding the possible development of the *lac* industry and the commercial value of oil derived from the seeds of forest trees and of gum resins were undertaken in conjunction with the Forest Chemist.

Forest Chemistry.—The following notes were published:—

On Cutch Analysis and the preparation of pure Catechin;

On the utilization of Khair forests in Eastern Bengal and Assam;

On the future of Cutch and Katha manufacture;

On the manufacture of Camphor from *Blumea balsamifera*;

On the manufacture of pure Shellac.

In addition, investigations were initiated in connection with the trade value of Burmese varnish or lacquer, locally distilled turpentine and the resin of *Podophyllum Emodi*.

50. The Research Institute is still in its infancy, and the experience of the year indicates that much remains to be done before the work of research can be regarded as being on a satisfactory footing. The claims of education on the time of the Research officers have already been alluded to and, at present, local Forest officers in various parts of India have to supervise or carry on many of the experiments necessary in connection with the investigations undertaken. Divisional officers have not generally time to devote to such work, and as the experiments become more extensive, special establishments will be required to supervise them and record the results.

APPENDIX I.

[*Vide* paragraphs 1—3.]

Area of Reserved and Leased Forests.

Province	Area in square miles.				Remarks.
	At commencement of year.	Added in 1907-08.	Excluded in 1907-08.	At close of 1907-08.	
Bengal . . .	(*a*)4,235	...	...	(*a*)4,235	(*a*) Excludes 5 square miles of Reserved forests not under the management of the Forest Department.
United Provinces . .	(*b*)4,091	1	1	(*b*)4,091	(*b*) Includes 157 square miles of Leased forests.
Punjab . . .	(*c*)2,334	24	(*d*)182	(*e*)2,176	(*c*) Revised figures: includes 525 square miles of Leased forests and excludes 114 square miles not under the management of the Forest Department.
Burma . . .	(*f*)21,576	1,400	118	22,858	
Eastern Bengal and Assam.	(*g*)6,250	300	...	(*g*)6,550	(*d*) Includes 156 square miles of Leased forests.
Central Provinces including Berar.	21,998	448	447	(*h*,21,999	(*e*) Includes 369 square miles of Leased forests.
Coorg . . .	476	44	...	520	(*f*) Revised figures.
North-West Frontier .	(*i*)234	5	3	(*i*)236	(*g*) Excludes 6 square miles of Reserved forests not under the management of the Forest Department.
Ajmer . . .	142	...	...	142	(*h*) Includes 34 square miles of village forests.
Baluchistan . . .	280	...	...	280	(*i*) Excludes 13 square miles of Military and Civil Reserved forests.
Andamans . . .	156	3	...	159	(*j*) Includes 217 square miles of Leased forests and 1,607 square miles under the control of the Revenue Department.
Total Bengal .	(*f*)61,772	2,225	751	63,246	(*k*) Includes 1,607 square miles under the control of the Revenue Department, incorrectly shown last year.
„ Madras .	18,541	242	234	18,549	(*l*) Includes 217 square miles of Leased forests and excludes 1,499 square miles under the control of the Revenue Department.
„ Bombay .	(*j*)13,716	173	(*k*)1,625	(*l*)12,264	
Grand Total, 1907-08 .	(*f*)94,029	2,640	2,610	94,059	
„ „ 1906-07 .	92,485	2,941	1,389	94,037	

APPENDIX II.

[*Vide* paragraphs 1–3.]

Area of all Forest Lands.

Province. Name.	Area in square miles.	Forest area in square miles. Reserved.	Protected.	Unclassed State.	Total.	Proportion of forests to whole area of Province.	Remarks.
Bengal . . .	115,790	4,235	(a) 2,793	...	7,028	6·0	(a) 40 square miles excluded during the year; excludes 599 square miles not under the control of the Forest Department.
United Provinces .	107,637	4,091	(b)30	(c)42	4,163	3·8	(b) Excludes 9,070 square miles of District Protected forests not under the control of the Forest Department.
Punjab . . .	97,218	2,176	5,241	(d) 1,722	9,139	9·4	(c) 1 square mile excluded during the year.
Burma . . .	176,543	22,858	...	(e) 107,597	130,455	73·3	(d) 31 square miles added and 65 square miles excluded during the year.
Eastern Bengal and Assam.	93,751	6,550	(f)	(g) 22,675	29,225	31·2	(e) 15 square miles added and 1,383 square miles excluded during the year.
Central Provinces including Berar.	100,332	21,999	...	(h)3	22,002	21·9	(f) 4 square miles not under the management of the Forest Department.
Coorg . . .	1,582	520	...	...	520	32·9	(g) Revised figure; 212 square miles added and 508 square miles excluded during the year.
North-West Frontier .	13,057	236	(i)	...	236	1·8	(h) 1 square mile transferred to Reserved forests.
Ajmer . . .	2,646	142	...	6	148	5·6	(i) 120 square miles of Civil Protected forests are not shown.
Baluchistan . .	9,403	280	...	...	280	2·9	(j) Reserved lands including 192 square miles of Leased forests.
Andamans . .	3,143	159	...	1,794	1,953	62·1	(k) Includes 439 square miles of Leased forests, and excludes 548 square miles under the control of the Revenue Department.
Total Bengal . .	721,102	63,246	8,064	133,839	205,149	28·4	
„ Madras . .	141,807	18,549	...	(j)1,058	19,607	13·8	
„ Bombay . .	128,029	12,264	(k)789	...	13,053	10·6	
Grand Total, 1907-08	985,938	94,059	8,853	134,897	237,809	24·2	
„ „ 1906-07	987,749	94,037	9,468	136,633	240,130	24·3	

APPENDIX III.

[*Vide* paragraph 4.]

Progress in Forest Settlements.

Province.	Areas already settled at the commencement of the year			Areas finally settled during the year.						Areas undergoing settlement.								
				Area.			Expenditure incurred.			At commencement of the year.			Taken in hand during the year.			Expenditure incurred during the year.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	R	R	R	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	R	R	R
Bengal	4,240	...	4,240	...	...	...	...	...	...	15	...	15	...	...	...	6,869	...	6,869
United Provinces	3,934	30	3,964	...	...	...	...	...	...	...	...	...	13	...	13	...	...	...
Punjab	(a) 1,922	5,241	7,163	1	...	1	...	...	...	62	205	267	...	...	...	...	...	...
Burma	(a) 21,510	...	21,510	1,349	...	1,349	2,096	...	2,096	2,390	...	2,390	3,350	...	3,350	19,759	...	19,759
Eastern Bengal and Assam.	6,256	...	6,256	300	...	300	3,360	...	3,360	134	...	134	122	...	122	...	...	...
Central Provinces including Berar.	(a) 18,257	...	18,257	4	...	4	180	...	180	1	...	1	12	...	12	...	...	...
Coorg	476	...	476	44	...	44	744	...	744	...	...	...	...	...	...	...	...	...
North-West Frontier	(a) 249	120	369	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	280	...	280	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Andamans	156	..	156	3	...	3	...	...	...	...	...	...	...	...		...	...	...
Total Bengal	(a) 57,280	5,391	62,671	1,701	...	1,701	6,380	...	6,380	2,602	205	2,807	3,497	...	3,497	26,628	...	26,628
„ Madras	(b) 18,505	...	18,505	44	...	44	(c) 1,110	...	(c) 1,110	453	...	453	66	...	66	1,879	...	1,879
Bombay	13,412	919	14,331	53	...	53	...	...	...	67	...	67	12	...	12	(d) 5,681	...	(d) 5,681
Grand Total, 1907-08	89,197	6,310	95,507	1,798	...	1,798	7,490	...	7,490	3,122	205	3,327	3,575	...	3,575	34,188	...	34,188
„ „ 1906-07	87,523	6,151	93,674	1,674	138	1,812	3,151		3,151	1,954	205	2,159	2,978	1	2,979	25,108	...	25,108

(*a*) Corrected figures.
(*b*) Difference of 23 square miles between the closing balance of last year and the opening balance of this year is mainly due to revision of figures as a result of surveys and disforestations.
(*c*) Excludes R100 expended in other than Forest Accounts.
(*d*) Excludes R7,169 expended in other than Forest Accounts.

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APPENDIX IV.

[*Vide* paragraph 5.]

Demarcation and Maintenance of Boundaries.

Province.	Circle.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
									On new work.	On repairs.
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	R	R
Bengal	.....	31	3,318	189	3,538	...	1,028	4,566	631	1,836
United Provinces	Eastern Circle	...	914	1,601	2,515	9	599	3,123	2,056	4,027
	Western „	...	509	1,629	2,138	1	784	2,923	101	3,858
	Total	...	1,423	3,230	4,653	10	1,383	6,046	2,157	7,885
Punjab	..... (*a*)	39	1,841	8,266	10,146	3,553	1,111	14,810	1,052	3,264
Burma	Pegu Circle	181	848	2,537	3,566	67	1,310	4,943	7,010	9,431
	Tenasserim „	259	1,238	2,150	3,647	193	635	4,475	3,614	6,836
	Northern „	141	1,017	2,587	3,745	39	553	4,337	3,642	2,938
	Southern „	365	1,078	2,740	4,183	427	609	5,219	6,772	3,891
	Total	946	4,181	10,014	15,141	726	3,107	18,974	21,038	23,096
Eastern Bengal and Assam.	.....	53	1,973	49	2,075	32	2,698	4,805	1,038	11,065
Central Provinces	Northern Circle	38	8,320	3,337	11,695	3	1,129	12,827	4,049	7,507
	Southern „	15	8,746	...	8,761	49	978	9,788	137	3,729
	Berar „	12	2,753	10,796	13,561	...	656	14,217	4,092	5,620
	Total	65	19,819	14,133	34,017	52	2,763	36,832	8,278	16,656
Coorg	.....	166	...	141	307	173	56	536	1,097	115
North-West Frontier	.....	...	122	655	777	...	139	916	...	585
Ajmer	.....	...	1	261	262	...	158	420	250	45
Baluchistan	.....	...	252	169	421	...	77	498	...	...
Andamans	.....	6	8	34	48	33	116	197	100	11
Total Bengal	.....	1,306	32,938	37,141	71,385	4,579	12,636	88,600	35,641	64,558
Madras	Northern Circle	141	2,639	7,356	10,136	97	545	10,778	9,765	2,430
	Central „	67	11,985	2,856	14,908	131	280	15,319	969	3,883
	Southern „	162	1,838	8,136	10,136	425	873	11,434	4,257	12,845
	Total	370	16,462	18,348	35,180	653	1,698	37,531	14,991	19,158
Bombay	Northern Circle	60	109	5,356	5,525	742	468	6,735	564	1,851
	Central „	99	3,256	11,477	14,832	4,176	1,471	20,479	1,160	1,213
	Southern „	529	933	10,800	12,262	503	629	13,394	4,650	2,374
	Sindh „	57	1,741	245	2,043	...	588	2,631	...	...
	Total	745	6,039	27,878	34,662	5,421	3,156	43,239	6,374	5,438
Grand Total, 1907-08	.....	2,421	55,439	83,367	141,227	10,653	17,490	169,370	57,006	89,154
„ 1906-07	.....	2,611	57,599	83,026	143,256	11,869	16,250	171,375	33,562	70,311

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private and other lands within the forests, but not the limits of subdivisions, such as blocks, compartments and coupes.

(*a*) The boundaries of the Chamba State Forests which have been retroceded to the Rajah are excluded.

APPENDIX V.

[*Vide* paragraphs 6—9.]

Forest areas surveyed and under survey.

Province.	1″=1 mile.		2″=1 mile.		4″=1 mile.		Total of detail Survey.		Expenditure on Surveys including mapping and publishing charges (debitable to Forests).
	Outturn.	Cost rate.	Outturn.	Cost rate.	Outturn.	Cost rate.	1907-08.	Total up to date.	
1	2	3	4	5	6	7	8	9	10
	Sq. m.	₹	Sq. m.	₹	Sq. m.	₹	Sq. m.	Sq. m.	₹
Bengal	...	...	1,257	42·5	...	...	1,257	2,307	(c) ...
United Provinces	...	...	...	...	...	...	...	4,138·5	2,285
Punjab	...	...	4	30·5	...	...	4	3,572	(c) 2,297
North-West Frontier Province	...	... (a)	...	...	...	...	...	366	735 (c)
Baluchistan	43	...	...	...	...	... (a)	43	43	... (c)
Burma	...	...	726	69·2	4·5	...	730·5	13,835·5	165 (c)
Central Provinces including Berar	...	...	57	54·3	...	...	57	18,676·5	631
Eastern Bengal and Assam	...	...	...	...	...	...	...	1,580	86
Ajmer	...	...	...	... (a)	...	...	...	144	... (c)
Coorg	...	...	40	...	...	...	40	40	...
Total of Bengal	43	...	2,084	...	4·5	...	2,131·5	44,702·5	(c) 6,199
„ Madras	...	...	35·5	52·8	39·0	326·0	74·5	14,352·5	(c) ...
„ Bombay	...	...	556·25	32·7	...	...	556·25	(b) 12,344·25	(c) ...
Total of Madras and Bombay	...	...	591·75	...	39·0	...	630·75	26,696·75	(c) ...
Grand Total, 1907-08	43	...	2,675·75	...	43·5	...	2,762·25	(b) 71,399·25	(d) 6,199
„ 1906-07	...	...	1,648	...	578·5	...	2,226·5	(b) 68,637	(e) 63,297

(a) Cost rate not given.
(b) Includes 126 square miles on 8″ scale.
(c) Exclusive of cost borne by the Survey of India.
(d) Excludes ₹30,655 for Head-quarters charges.
(e) „ ₹32,022 „ „

APPENDIX VI.

[*Vide* paragraphs 6—9.]

Details of Forest Survey operations.

Province.		Forest surveyed.	Nature of Survey Operations. 2" Detail Survey. Area.	2" Detail Survey. Cost rate.	4" Detail Survey. Area.	4" Detail Survey. Cost rate.	Expenditure including mapping and publishing charges (debitable to Forests).	Remarks.
			Sq. m.	₹	Sq. m.	₹	₹	
Bengal		Sunderbans	1,257	42·5	...	...	.. (a)	
Eastern Bengal and Assam		Chittagong	...	...	...	...	86	Mapping and publishing charges.
United Provinces of Agra and Oudh.	Western Circle.	Tehri Garhwal	...	...	...	...	600	Mapping and publishing charges.
		Naini Tal	...	...	...	...	456	For 2nd edition of Kumaun and Garhwal maps.
		Ganges	...	...	...	...	374	
		Garhwal	..	...	...	...	718	
	Eastern Circle.	Kheri	...	...	...	...	38	Mapping and publishing charges.
		Pilibhit	...	...	...	...	99	
		Total	...	...	...	...	2,285	
Punjab		Attock	4	30·5	...	...	...(a)	Mapping and publishing charges.
		Rawalpindi	...	...	...	...	238	
		Jhelum	...	...	...	...	657	
		Bashahr	...	...	...	...	1,232	
		Shahpur	...	...	...	...	170	
		Total	4	30·5	...	...	2,297	
North-West Frontier Province.		Hazara	...	...	...	...	735	Mapping and publishing charges.
Burma	Northern Circle.	Mu	232	...	...	...	...(a)	
		Katha	...	...	...	...	19	Mapping charges.
	Southern Circle.	Yaw	275	...	...	...	...(a)	
		Ruby Mines	219	...	4·5	...(c)	...(a)	
		Minbu	...	...	...	...	146	Mapping charges.
		Total	726	69·2	4·5	...(c)	165	
Central Provinces		Berar	57	54·3	...	...	631(a)	Preparation of Taluk maps
Baluchistan		.....	43(b)	...(c)	...	...	...(a)	
Coorg		.....	40	.. (c)	...	...	...(a)	
Madras	Northern Circle.	Ganjam	...	...	39	326·0	...(a)	
	Southern Circle.	North and South Malabar.	33·5	...	...	...		
		Nilgiris	2	...	...	...		
		Total	35·5	52·8	39	326·0	...(a)	
Bombay	Central Circle.	West Khandesh	555	32·7	...	...	...(a)	
		East Khandesh	1·25					
		Total	556·25	32·7	...	...	..(a)	
Forest Surveys		Head-quarters	...	...	...	...	30,655	
Grand Total, 1907-08		.....	(b) 2,718·75	...	43·5	...	36,854	
,, ,, 1906-07		.....	1,648	...	578·78	...	95,319	

(a) Cost borne by the Survey of India.

(b) Includes 43 Sq. miles on 1" scale.

(c) Cost rate not given.

APPENDIX VII.

[*Vide* paragraph 10.]

Areas brought under the control of sanctioned Working-Plans up to 30th June 1908 in the Provinces outside the Madras and Bombay Presidencies.

Province.	Forest Area in square miles.				Area for which Working-Plans prepared and sanctioned up to 30th June 1908.	Proportion of Forest area under sanctioned Working-Plans.
	Reserved.	Protected.	Unclassed State.	Total.		
					Sq. miles.	Per cent.
Bengal	4,235	2,793	...	7,028	5,088	72
United Provinces	4,091	30	42	4,163	3,750	90
Punjab	2,176	5,241	1,722	9,139	4,013	44
Burma	22,858	...	107,597	130,455	5,629	4
Eastern Bengal and Assam . .	6,550	...	22,675	29,225	1,103	4
Central Provinces including Berar .	21,999	...	3	22,002	11,683	53
Coorg	520	...	...	520	178	34
North-West Frontier . . .	236	...	...	236	236	100
Ajmer	142	...	6	148	140	95
Baluchistan	280	...	...	280	...	...
Andamans	159	...	1,794	1,953	...	...
Grand Total, 1907-08 .	63,246	8,064	133,839	205,149	31,825	16
„ „ 1906-07 .	61,780	8,109	135,554	205,443	30,216	15

APPENDIX VIII.

[*Vide* paragraphs 10 and 11.]

Progress in Working-Plans in the Provinces outside the Madras and Bombay Presidencies during the year 1907-08.

Province.		Preliminary proposals submitted to the Inspector-General of Forests, for Working-Plans.		Completed plans submitted for opinion and remarks of Inspector-General of Forests.		Plans finally sanctioned by Local Governments on recommendation of the Inspector-General of Forests.	
		No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.
1		2	3	4	5	6	7
		No.	Sq. miles.	No.	Sq. miles.	No.	Sq. miles.
Bengal		1	66	1	225	1	(a)225
United Provinces	Eastern Circle	...	...	1	71	1	(a)21
	Western „	...	...	...	...	1	78
Punjab		...	...	...	...	...	...
Burma	Pegu Circle	...	...	...	...	...	...
	Tenasserim Circle	...	...	1	570	2	601
	Northern „	1	38	...	...	...	...
	Southern „	4	645	3	798	3	820
Eastern Bengal and Assam		3	326	...	...	...	...
Central Provinces	Northern Circle	1	42	2	981	...	...
	Southern „	1	501	1	193	1	(b)193
	Berar „	...	...	...	...	...	...
Coorg		...	...	...	...	...	...
North-West Frontier		...	...	...	...	1	51
Ajmer		...	...	...	...	...	...
Baluchistan		...	...	...	...	...	...
Andamans		...	...	...	...	...	...
	Total	11	1,618	9	2,838	10	1,989

Note.—This statement has been compiled by the Superintendent of Working-Plans.

(*a*) Revised Working-Plan.

(*b*) Includes 136 Sq. miles of revision.

APPENDIX IX.

[*Vide* paragraphs 10 and 11.]

Comparative Statement of Progress made in Working-Plans.

Province.	Areas for which Working-Plans have been completed and sanctioned.		Areas for which Working-Plans are being compiled.		Areas for which Working-Plans have still to be taken in hand.	Total forest area, as in Form No. 51.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year	Taken in hand during the year.			
1	2	3	4	5	6	7	8
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	
Bengal	(a)5,088	...	295	...	1,645	(a)7,028	(a) Exclude 5 square miles of "other Reserves."
United Provinces — Eastern Circle	(b)1,815	...	...	34	306	2,155	(b) Includes 831 square miles of Forests in Bahraich, Kheri and Pilibhit Divisions, the existing Working-Plans for which were under revision during the year, and 21 square miles of Forests in Gonda Division, the Working-Plan for which was sanctioned during the year.
United Provinces — Western „	(c)1,857	78	...	...	73	(c)2,008	(c) Decrease by 1 square mile, as compared with the figures of previous year, is due to the Lurli and Suitoli forests in the Jaunsar Division being handed over to the cantonment authorities.
Punjab	(d)4,013	...	362	...	4,764	9,139	(d) Decrease by 132 square miles, as compared with the figures of 1906-07, is due to the re-demarcation and the transfer of Chamba forests to the management of the Chamba State.
Burma — Pegu Circle	1,672	...	...	...	30,082	31,754	(e) Decrease by 218 square miles, as compared with the figures of 1906-07, is due to changes in the area of forests, under the Working-Plans in the Hoshangabad and Seoni Divisions.
Burma — Tenasserim Circle	1,187	601	265	...	29,605	31,658	(f) Increase by 2 square miles, as compared with the figures of 1906-07, is due to re-calculation of areas in North Chanda Division.
Burma — Northern „	38	...	716	276	27,696	28,726	(g) Increase by 1 square mile, as compared with the figures of the previous year, is due to the re-survey of the area.
Burma — Southern „	1,311	820	663	315	35,208	38,317	(h) A Working-Plan for this area was compiled during 1906-07, but has not yet been brought into force.
Eastern Bengal and Assam	1,103	...	199	158	27,765	29,225	(i) Includes 918 square miles, for which Working-Plans are not required.
Central Provinces — Northern Circle	(e)3,902	...	939	...	(i)2,529	7,370	(j) Includes 1,441 square miles, for which Working-Plans are not required.
Central Provinces — Southern „	(f)5,540	57	...	...	(j)2,026	7,623	(k) Includes 2,340 square miles, for which Working-Plans are not required.
Central Provinces — Berar „	2,189	...	...	...	(k)4,820	7,009	(l) Decrease by 27 square miles, as compared with the figures of 1906-07, in columns 2 and 3 is due to the adoption of the area given in India Survey Maps.
Coorg	178	...	...	...	342	520	(m) Excludes 89 square miles, which are included in columns 2, 3 and 4.
North-West Frontier	(g)185	(g)51	...	...	...	236	(n) Decrease by 1 square mile, as compared with the figures of 1906-07, is due to re-computation of area.
Ajmer	140	...	...	...	8	148	(o) Decrease by 1 square mile, as compared with the previous years' figures, is due to the reduction of the Western Kanara Division.
Baluchistan	...	...	...	...	280	280	(p) Includes 21 square miles, which have not been accounted for in the Report.
Andamans	...	...	(h)317	...	1,636	1,953	
Total Bengal	30,218	1,607	3,756	783	168,785	205,149	
Madras — Northern Circle	(l)2,281	255	602	(m)1,074	2,599	6,811	
Madras — Central „	2,177	248	1,724	536	2,558	7,243	
Madras — Southern „	2,167	101	593	6	2,686	5,553	
Total	(l)6,625	604	2,919	(m)1,616	7,843	19,607	
Bombay — Northern Circle	(n)1,787	2	64	...	664	2,517	
Bombay — Central „	2,280	52	414	96	2,264	5,106	
Bombay — Southern „	(o)920	25	204	64	3,111	4,324	
Bombay — Sindh „	611	421	...	...	(p)74	1,106	
Total	5,598	500	682	160	6,113	13,053	

APPENDIX X.

[*Vide* paragraphs 12 to 14.]

Expenditure on Communications and Buildings.

Province.	New Work.		Repairs.		Other Works.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
	₹	₹	₹	₹	₹	₹
Bengal	22,364	29,756	6,571	9,999	2,868	71,558
United Provinces	44,616	19,361	31,619	47,343	12,136	1,55,075
Punjab	45,795	33,131(*a*)	7,879	21,477	2,168	1,10,450(*a*)
Burma	81,650	93,864	42,557	20,425	12,861(*b*)	2,51,357(*b*)
Eastern Bengal and Assam	38,822	46,014	19,730	11,190	7,034	1,22,790
Central Provinces including Berar	91,731	83,213	22,811	27,737	1,15,529	3,41,021
Coorg	812	...	953	1,963	80	3,808
North-West Frontier	3,007	1,239	1,641	642	93	6,622
Ajmer	642	333	53	354	562	1,944
Baluchistan	...	74	100	6	...	180
Andamans	2,299	131	395	2,093	...	4,918
Total Bengal	3,31,738	3,07,116	1,34,309	1,43,229	1,53,331	10,69,723
„ Madras	76,804	32,413	31,740	38,421	10,491	1,89,869
„ Bombay	55,518	8,865	15,391	19,587	11,870(*c*)	1,11,231(*c*)
Grand Total, 1907-08	4,64,060	3,48,394	1,81,440	2,01,237	1,75,692	13,70,823
„ „ 1906-07	3,61,543	1,96,738	1,62,205	1,93,338	82,089	9,95,911

(*a*) Excludes ₹5,097 spent on explosives.

(*b*) Excludes ₹2,466 paid in wages of rest-house darwans in the Tenasserim Circle.

(*c*) Excludes ₹7,705 spent by the Public Works Department in the Northern Circle and ₹3,858 in the Sind Circle. Excludes also certain expenditure on wells and other works included under Buildings.

APPENDIX XI.

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules.

Province.	Number of cases decided by the courts.	Number of cases compounded.	Total.	Percentage of convictions to total number of cases decided by the courts.
Bengal	265	2,065	2,330	82·2
United Provinces	111	1,011	(*a*)1,122	85·6
Punjab	871	5,247	6,118	80·2
Burma	894	2,217	3,111	84·9
Eastern Bengal and Assam	191	735	926	82·7
Central Provinces including Berar	351	5,914	6,265	80·9
Coorg	2	62	64	100·0
North-West Frontier	66	732	798	78·8
Ajmer	62	507	569	85·5
Baluchistan	57	168	225	92·9
Andamans	15	...	15	100·0
Total Bengal	2,885	18,658	21,543	82·8
„ Madras	(*b*)4,444	(*c*)15,257	19,701	88·5
„ Bombay	1,420	16,167	17,587	85·9
*Grand Total 1907-08	8,749	50,082	58,831	86·2
*Grand Total 1906-07	10,377	47,481	57,358	85·9
*Grand Total 1905-06	11,160	46,564	57,724	88·3
*Grand Total 1904-05	10,209	43,842	54,051	89·0

* Includes cases which were pending at the close of the previous year.
(*a*) Excludes breaches of rules in District Forests.
(*b*) and (*c*) Exclude 848 and 1,256 cases respectively withdrawn under the orders of the District Forest Officers.

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APPENDIX XII.

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules.

Province.	Cases taken into Court.				Compounded cases.				Cases in which the Offenders remained undetected.				Total of each class of offence.				
	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Grand total of cases.
Bengal	53	187	30	33	6	1,190	491	112	163	15	...	1	222	1,392	521	146	2,281
United Provinces	38	40	35	24	37	409	565	71	110	67	10	1	185	516	610	96	1,407
Punjab	61	496	2 18	86	40	2,567	2,607	33	281	68	6	...	382	3,131	2,831	119	6,463
Burma	32	762	44	137	33	1,260	107	871	82	41	...	7	147	2,063	151	1,015	3,376
Eastern Bengal and Assam	4	116	6	73	1	395	135	204	31	3	...	...	36	514	141	277	968
Central Provinces (including Berar).	34	120	136	59	70	3,004	2,767	163	289	169	17	...	393	3,293	2,920	222	6,828
Coorg	2	2	...	1	...	10	15	37	...	...	...	...	2	12	15	38	67
North-West Frontier	50	99	20	4	6	390	278	58	43	9	...	1	99	448	298	63	908
Ajmer	...	41	20	1	3	324	164	16	2	...	...	...	5	365	184	17	571
Baluchistan	...	45	35	1	...	2	165	1	4	2	...	...	4	49	200	2	255
Andamans	...	23	...	...	...	...	...	...	...	...	...	...	...	23	...	...	23
Total Bengal	274	1,881	544	419	196	9,551	7,294	1,566	1,005	374	33	10	1,475	11,806	7,871	1,995	23,147
,, Madras	71	3,680	1,467	310	7	10,505	6,104	666	701	574	343	25	779	14,759	7,914	1,001	24,453
,, Bombay	95	648	382	137	197	6,028	6,798	1,280	2,133	2,229	51	115	2,425	8,905	9,231	1,532	22,093
* Grand Total, 1907-08	440	6,209	2,393	866	400	26,084	22,196	3,512	3,839	3,177	427	150	4,679	35,470	25,016	4,528	69,693
,, ,, 1906-07	406	6,194	2,768	1,002	369	23,894	21,454	4,058	3,363	3,208	587	153	4,138	33,296	24,809	5,213	67,456
,, ,, 1905-06	421	6,864	3,261	1,189	437	24,070	20,711	3,405	3,462	2,977	672	177	4,320	33,911	24,644	4,771	67,646
,, ,, 1904-05	313	6,431	2,933	1,104	348	23,251	18,950	3,098	3,337	3,186	427	157	3,998	32,868	22,310	4,359	63,535

* Includes only the new cases of the year; not those which were left pending at the close of the previous year.

APPENDIX XIII.

[*Vide* paragraphs 17 to 19.]

Causes of Forest Fires.

Province.	I.—Fires due to preventible causes.				II.—Other Fires.				Total.	
	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the Fire traces.		Fires due to carelessness of outsiders or to unknown causes.		Fires originating from intention or malice.			
	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.
Bengal	13	4·7	21	6·0	39	12·1	36	70·0	109	92·8
United Provinces . Eastern Circle	19	27·9	20	14·7	64	118·7	7	16·4	110	177·7
United Provinces . Western „	14	·8	15	15·5	51	27·4	8	122·6	88	166·3
Total	33	28·7	35	30·2	115	146·1	15	139·0	198	344·0
Punjab	14	1·8	60	5·4	256	8·7	50	10·9	380	26·8
Burma . Pegu Circle	13	11·0	19	71·6	86	62·8	21	33·2	139	178·6
Burma . Tenasserim Circle	7	·4	11	28·9	36	24·2	1	1·7	55	55·2
Burma . Northern „	16	7·4	10	26·0	18	33·0	2	3·0	46	69·4
Burma . Southern „	13	39·4	14	13·6	19	3·3	6	7·5	52	63·8
Total	49	58·2	54	140·1	159	123·3	30	45·4	292	367·0
Eastern Bengal and Assam	3	2·6	21	56·8	36	27·8	3	·1	63	87·3
Central Provinces . Northern Circle	27	12·2	13	10·4	89	90·2	5	22·5	134	135·3
Central Provinces . Southern „	24	29·2	33	203·9	110	159·6	12	66·5	179	459·2
Central Provinces . Berar „	21	9·7	12	61·8	76	146·2	1	...	110	217·7
Total	72	51·1	58	276·1	275	396·0	18	89·0	423	812·2
Coorg	...	...	5	·4	2	·1	4	2·1	11	2·6
North-West Frontier	...	...	17	3·0	52	·3	121	34·0	190	(a)37·3
Ajmer	...	...	...	...	4	·1	...	...	4	·1
Total Bengal	184	147·1	271	518·0	938	714·5	277	390·5	1,670	1,770·1
Madras . Northern Circle	53	28·5	82	114·2	248	233·1	55	49·9	438	425·7
Madras . Central „	7	·8	35	14·8	233	39·3	187	106·0	462	160·9
Madras . Southern „	18	20·9	27	1·0	92	12·9	53	6·6	190	41·4
Total	78	50·2	144	130·0	573	285·3	295	162·5	1,090	(b)628·0
Bombay . Northern Circle	40	·7	29	3·5	660	120·3	2	·3	731	124·8
Bombay . Central „	38	24·7	26	3·9	497	356·5	83	14·8	644	399·9
Bombay . Southern „	9	·9	81	21·5	733	170·9	70	28·5	893	221·8
Bombay . Sindh „	2	·1	...	...	171	20·9	...	...	173	31·0
Total	89	26·4	136	28·9	2,061	678·6	155	43·6	2,441	(b)777·5
Grand Total . 1907-08	351	223·7	551	676·9	3,572	1,678·4	727	596·6	5,201	3,175·6
Grand Total . 1906-07	283	110·6	416	371·7	3,214	1,798·4	479	300·0	4,392	2,581·0

(a) Includes nearly 2 sq. miles of unprotected forests burnt.

b The total areas shown as burnt in Madras and Bombay do not agree with those given in para. 18 of the Review. This is due to discrepancies in the Circle reports, which cannot be accounted for.

APPENDIX XIV.

[*Vide* paragraphs 20 to 22.]

Protection from Cattle.

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			All classes of Forests.		
	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.
Bengal	4,235	3,678	88	2,793	1,733	305	...	...	...	7,028	5,411	393
United Provinces	4,091	1,840	609	30	...	30	42	...	30	4,163	1,840	669
Punjab	2,176	352	672	5,241	82	145	1,722	15	66	9,139	449	883
Burma	22,858	18,600	85	...	...	...	107,597	...	...	130,455	18,600	85
Eastern Bengal and Assam	6,550	4,741	1,070	...	...	...	22,675	...	...	29,225	4,741	1,070
Central Provinces including Berar	21,999	2,996	7,967	...	...	...	3	...	...	22,002	2,996	7,967
Coorg	520	183	...	...	...	...	...	...	...	520	183	...
North-West Frontier Province	236	41	95	...	...	...	...	...	...	236	41	95
Ajmer	142	14	128	...	...	...	6	...	...	148	14	128
Baluchistan	280	209	8	...	...	...	...	...	...	280	209	8
Andamans	159	159	...	...	...	...	1,794	...	...	1,953	159	...
Total Bengal	63,246	32,813	10,722	8,064	1,815	480	133,839	15	96	205,149	34,643	11,298
„ Madras	18,549	2,085	(a) 819	...	...	...	(b) 1,058	75	...	19,607	2,160	(a) 819
„ Bombay	12,264	2,276	8,488	789	...	34	...	...	...	13,053	2,276	8,522
Grand Total 1907-08	94,059	37,174	20,029	8,853	1,815	514	134,897	90	96	237,809	39,079	20,639
Grand Total 1906-07	94,037	37,812	18,823	9,468	1,791	628	136,633	6	108	240,138	39,609	19,559

(a) This refers to all browsers; goats were admitted to 649 square miles of forest only.
(b) Reserved lands.

APPENDIX XV.

[*Vide* paragraphs 20 to 22.]

Protection from Cattle.

Province.	Circle.	GRAZED ON PAYMENT, NUMBER OF ANIMALS. — At full rates. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	At privileged rates. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	GRAZED FREE, NUMBER OF ANIMALS. — By right under settlement. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	During pleasure of Government or otherwise than under Settlement. Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
Bengal	...	6,902	42,019	4,005	...	24	9,632	153,897	12,572	...	532	21,000	63,000	21,000	...	...	...	179	133	...	2
United Provinces.	Eastern	44,592	128,926	3,545	...	1,240	24,137	127,192	39,211	...	627	13,446	64,742	13,343	...	1,198	3,103	14,279	716	...	799
	Western	29,155	59,699	51,109	5,604	21,037	5,082	25,269	67,906	...	233	8,938	70,526	38,619	...	36	426	6,417	562	...	...
Total	...	73,747	188,625	54,654	5,604	22,277	29,219	152,461	107,117	...	860	22,384	135,268	51,962	...	1,234	3,529	20,696	1,278	...	79
Punjab	...	14,960	55,546	367,674	13,914	1,430	1,697	9,430	241,061	116	972	145,215	664,188	700,455	282	12,930	36	744	63	4,451	40
Burma	Pegu	1,671	1,295	...	...	3	...	...	...	...	...	21,305	43,405	...	...	1	...	...	...	...	26
	Tenasserim	22	75	...	...	1	...	...	...	...	...	4,291	32,439	...	...	9	...	697	...	...	5
	Northern	52	...	...	...	...	90	...	...	...	...	17,549	220	...	...	..	760	10	...	...	348
	Southern	137	2,816	170	...	7	...	...	...	...	...	1,656	66,183	...	...	...	2,222	...	...	...	753
Total	...	1,882	4,186	170	...	11	90	...	...	...	...	44,801	142,247	...	...	10	2,982	707	...	...	1,130
Eastern Bengal and Assam.	...	43,816	18,063	30	...	691	...	90,504	...	...	...	...	60	...	...	...	64,223	376,602	72,477	...	650
Central Provinces.	Northern	130,938	644,329	51,224	...	2,620	...	...	...	...	...	...	...	...	...	...	96,300	534,113	50,199	...	1,089
	Southern	35,967	267,168	108,645	...	390	67,115	559,322	69,179	...	778	...	...	...	...	...	584	6,963	202	...	...
	Berar	189,396	1,026,389	493,325	70	3,733	3,404	20,981	121	...	15	...	115,059	...	...	...	33,661	174,608	7,294	...	433
Total	...	356,301	1,937,886	653,194	70	6,743	70,519	580,306	69,300	...	793	...	115,059	...	...	...	130,545	715,684	57,695	...	1,522
Coorg	...	494	2,263	...	...	...	...	...	...	...	...	1,676	...	...	...	...	...	30	...	...	...
North-West Frontier Province.	...	1,512	1,802	22	...	44	...	...	...	...	...	370	740	...	...	...	21,402	27,038	...	...	15
Ajmer	...	44	178	...	...	...	1,161	5,920	...	...	...	...	...	...	...	...	1,663	8,971	...	...	...
Baluchistan	...	222	2,830	640	...	...	...	...	...	...	...	...	1,337	21,959	1	662	...	...	...	...	...
Total Bengal.	1907-08	499,880	2,248,398	1,080,389	19,588	31,220	112,318	992,518	430,050	116	3,157	235,446	1,121,899	795,376	283	14,836	224,380	1,150,711	131,649	4,451	4,158
	1906-07	617,117	2,670,896	1,170,160	12,647	19,892	116,549	972,507	451,597	217	5,338	246,421	1,036,578	795,935	283	14,588	75,055	428,202	75,656	2,120	2,687
Madras	Northern	92,040	478,221	895,423	...	...	7,258	38,364	6,611	...	...	...	2,685	5,505	...	...	2,031	31,073	...	...	...
	Central	41,055	841,825	1,039,100	...	...	...	257	1,282	...	...	...	584	...	...	...	708	2,794	355	...	...
	Southern	2 9,12	343,218	181,617	...	323	...	579	...	...	...	2,315	...	...	...	...	...	...	...	...	...
Total	1907-08	162,267	1,663,364	2,116,140	...	323	7,258	39,200	7,893	...	...	2,315	3,269	5,505	...	...	2,739	33,867	355	...	...
	1906-07	158,360	1,560,785	1,808,607	...	388	6,881	50,895	92,861	...	...	1,491	5,182	2,202	...	...	2,045	18,035	193	...	...
Bombay	Northern	675	3,070	...	...	...	70,937	16,054	15	...	...	...	...	...	...	...	53,238	281,850	...	...	...
	Central (a)	7,686	26,795 (b)	230	...	1,353	34,481	290,919 (b)	140,955	...	2,295	4,366	19,401	...	...	265	...	...	...	...	...
	Southern	...	2,671	1,614	...	...	...	347,061	8,834	...	51	...	...	...	..	...	...	...	...	...	...
	Sindh	11,755	10,844	48,919	1,340	370	683	1,543	2,611	75	149	2,809	10,520	91	2	121	413	954	777	792	1,654
Total	1907-08	20,116	43,380	50,763	1,340	1,723	106,101	655,577	152,415	75	2,495	7,175	29,921	91	2	386	53,651	282,804	777	792	1,654
	1906-07	14,669	30,168	56,026	1,268	877	100,387	537,311	165,880	83	4,591	8,590	39,721	91	2	767	48,450	280,410	1,147	1,000	3,527
Grand Total	1907-08	682,263	3,955,142	3,247,292	20,928	33,266	225,677	1,687,295	590,358	191	5,652	244,966	1,135,089	800,972	285	15,222	280,770	1,467,382	132,781	5,243	5,812
	1906-07	790,146	4,261,849	3,034,793	13,915	21,157	223,817	1,560,713	710,338	300	9,929	256,502	1,141,481	793,228	285	15,355	125,550	726,647	76,996	3,120	6,214

(a) Exclusive of the Nasik, Poona and Satara Divisions for which details are not available. It is estimated that the total number of cattle of all kinds grazed in the Government forests was 519,459 in these three divisions.

(b) Includes buffaloes.

APPENDIX XVI.

[*Vide* paragraph 27.]

Area of Plantations and the cost of the year's work.

Province.	AREA IN ACRES.												Cost of operations during the year.
	At commencement of the year.			Added during the year			Excluded during the year.			Balance at close of the year.			
	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	
													R
Bengal	754	(a) 45	799	10	40	50	...	...	...	764	85	849	1,412
United Provinces	(b) 3,672	...	3,672	(c) 1,131	...	1,131	...	...	...	4,803	...	4,803	3,393
Punjab	507	...	507	...	...	...	...	...	...	507	...	507	...
Burma	5,646	(d) 73,330	(d) 78,976	...	(e) 1,462	1,462	412	77	489	5,234	74,715	79,949	92,522
Eastern Bengal and Assam.	3,861	7	3,868	...	...	...	3	...	3	3,858	7	3,865	6,946
Central Provinces including Berar.	1,041	(f) 4,539	(f) 5,580	264	819	1,083	...	1,274	1,274	1,305	4,084	5,389	1,868
Coorg	2,062	1,197	3,259	...	24	24	...	...	...	2,062	1,221	3,283	3,074
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	64	...	64	...	...	...	...	...	...	64	...	64	921
Baluchistan	33	...	33	...	...	...	...	...	...	33	...	33	174
Andamans	697	617	1,314	66	215	281	...	...	...	763	832	1,595	5,912
Total Bengal	18,337	79,735	98,072	1,471	2,560	4,031	415	1,351	1,766	19,393	80,944	100,337	1,16,222
Madras	(d) 24,254	(d) 2,231	(d) 26,485	1,204	25	1,229	274	29	303	25,184	2,227	27,411	1,02,112
Bombay	(d) 16,364	...	16,364	2,821	...	2,821	2,517	...	2,517	16,668	...	16,668	18,632
Grand Total 1907-08	58,955	81,966	140,921	5,496	2,585	8,081	3,206	1,380	4,586	61,245	83,171	144,416	2,36,966
Grand Total 1906-07	61,838	74,347	136 185	3,344	2,759	6,103	7 472	31	7,503	57,710	77,075	134,785	2,31,036

(*a*) Erroneously omitted from last year's return.
(*b*) Includes 2.649 acres of plantation in Gorakhpur division practically abandoned as failures.
(*c*) Includes 70 acres found in excess in re-calculation of the area and 161 acres not sown.
(*d*) Revised figures.
(*e*) Includes 5 acres in the Zigyim Reserve being the area of an old plantation erroneously omitted from previous year's returns.
(*f*) Revised figures. Includes 365 acres of teak plantation in Seoni division and 4,124 acres sown with timber species in conjunction with field crops which were not shown in previous years.

APPENDIX XVII.

[*Vide* paragraph 37.]

Outturn of Forest Produce.

I.

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			Average outturn per square mile. Reserved Forests.			Protected Forests.			Unclassed Forests.		
	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.
	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R
Bengal	18,411,988	5,551,421	1,44,270	17,598,846	4,570,489	1,41,826	(a)11,639	...	...	4,347	1,310	34	6,301	1,639	50	...(a)	...	..
United Provinces	15,365,048	15,587,262	4,95,090	393,760	965	3,992	94,872	11,455	2,970	3,755	3,810	121	13,145	32	133	2,259	272	59
Punjab (b)	11,438,718	317,778	2,62,662	17,627,988	3,580	2,45,854	994,346	26,182	49,635	4,905	136	112	3,363	1	47	577	15	28
Burma	9,694,986	18,532,000	1,76,942	...	...	...	33,209,925	43,286,000	2,22,074	924	810	8	...	...	...	303	402	8
Eastern Bengal and Assam.	5,417,309	11,974,600	1,31,003	...	...	...	10,881,125	11,415,030	5,74,868	827	1,828	20	...	...	...	479	503	25
Central Provinces including Berar.	24,192,095	20,620,616 (c)	16,79,680	...	...	...	...	...	...	1,099	937	76	...	...	...	..	...	.
Coorg	219,380	96,350	20,589	...	...	...	(d)158,203	(d)44,100	...	422	185	40	...	...	...	.	...	..
North-West Frontier	970,122	...	26,666	...	...	...	...	...	...	4,110	...	113	...	...	...	...	...	...
Ajmer	637,527	8,634	16,036	1,600	...	59	...	...	...	4,490	61	113	(e)	...	(e)	...	...	..
Baluchistan	66,216	...	18,432	...	...	...	352,740	...	26	236	...	66	...	...	...	(f)	...	(f)
Andamans	872,447	439,994	1,999	...	...	...	913,205	519,205	3,913	5,152	2,750	12	...	...	...	509	307	2
Total Bengal, 1907-08	87,285,827	73,128,715	29,73,372	35,622,194	4,575,034	3,91,731	46,616,052	55,332,022	8,53,018	1,376	1,153	47	4,417	567	48	348	413	6
Total Bengal, 1906-07	86,062,974	76,409,517	24,91,330	34,538,319	4,542,275	3,89,855	41,789,337	54,551,624	8,38,813	1,393	1,236	40	4,259	560	48	309	407	6

(a) This outturn from unclassed forests is credited to the Chaibassa and Singbhum Divisions. There are, however, no demarcated unclassed forests in Bengal.
(b) Including the Chamba forests (156 square miles) retroceded to the Raja on 1st April 1908.
(c) Tons of bamboos in the Northern Circle have been converted at the rate of 700 bamboos to the ton.
(d) Represents the outturn of "unreserved lands."
(e) There are only 115 acres of protected forest in Ajmer.
(f) A record of the area of unclassed forests does not appear to have been kept.

II.

Presidency.	Total area under control of Forest Department.	Timber and Fuel.	Bamboos.	Minor Produce.	Average outturn per square mile. Timber and Fuel.	Bamboos.	Minor Produce.
	Sq. miles (a)	C. ft.	No.	R	C. ft.	No.	R
Bengal	205,305	169,524,073	133,035,771	42,18,119	825	655	20
Madras	19,607	26,354,690	44,657,838	16,20,999	1,345	2,278	82
Bombay (b)	13,053	39,103,360	15,733,416	13,00,123	2,996	1,205	100
Grand Total 1907-08	(a) 237,965	234,982,123	193,427,023	71,39,241	996	813	30
Grand Total 1906-07	240,138	222,146,948	181,393,770	65,90,019	925	755	27

(a) Includes the Chamba forests (156 square miles) retroceded to the Raja on 1st April 1908.
(b) Excludes R25,620 worth of sandalwood exploited during the year, and 184 cart loads of dry bamboo.

APPENDIX

[*Vide*

Forest Produce removed

Province.		Timber.				Fuel.			
		Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.
		C. ft.	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal		27,555	4,966,506	9,307	175,744	97,143	17,356,891	4,373	13,384,954
United Provinces		93,198	4,163,465	80,177	237,370	593,880	7,254,082	170,348	3,261,160
Punjab		497,092	4,933,077	10,871	722,177	1,042,408	2,962,044	98,704	19,794,679
Burma		3,576,128	23,248,422	615,006	772,602	343,925	13,364,359	49,825	934,644
Eastern Bengal and Assam		399,137	4,821,334	554,568	7,550	18,109	4,812,539	4,058,263	1,626,925
Central Provinces including Berar		634,248	3,126,539	532,275	43,218	1,053,309	14,102,761	2,930,250	1,769,495
Coorg		112,130	173,030	...	...	12,000	80,420	...	...
North-West Frontier		62,791	600,272	931	...	91,250	151,818	28,080	34,980
Ajmer		1,796	2,915	...	3,585	36,674	594,037	...	120
Baluchistan		148	6,939	16,431	...	47,654	341,723	1,126	4,935
Andamans		579,296	41,273	34,110	110,063	692,760	18,240	272,880	37,030
Total Bengal	1907-08	5,983 519	46,083,772	1,853,676	2,072,309	4,029,112	61,038,914	7,613,849	40,848,922
	1906-07	7,092,744	40,198,856	1,164,733	2,342,728	3,842,646	60,859,396	5,963,173	40,926,354
Madras (*b*)		900,176	2,582,905	144,680	89,857	13,444,727	9,023,909	13,930	154,506
Bombay (*c*)		939,979	4,298,394	114,188	302,100	4,072,903	21,952,843	25,535	7,397,418
Grand Total	1907-08	7,823,674	52,965,071	2,112,544	2,464,266	21,546,742	92,015,666	7,653,314	48,400,846
	1906-07	8,719,273	45,411,733	1,325,357	2,433,669	20,725,926	92,222,166	5,991,867	45,316,957

XVIII.

paragraph 37.]

by different agencies.

Bamboos.				Minor produce including Grass and Grazing.				Province.	
Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.		
No.	No.	No.	No.	R	R	R	R		
509,743	5,594,317	17,850	4,000,000	253	1,72,393	540	1,12,910	Bengal.	
20,161	15,350,196	...	229,325	96,948	2,65,635	82,258	56,711	United Provinces.	
48,250	298,215	...	1,075	2,516	1,80,639	3,057	3,71,939	Punjab.	
53,000	56,524,000	49,000	5,192,000	7,032	2,35,968	13,134	1,42,882	Burma.	
19,867 (a)	19,127,748 (a)	1,251,325 (a)	3,020,800	54,209	2,64,052	3,64,955	22,658	Eastern Bengal and Assam.	
484,659	18,635,946	884,611	615,400	48,326	13,13,589	2,72,799	44,966	Central Provinces including Berar.	
...	140,450	...	...	...	20,589	...	...	Coorg.	
...	...	...	...	687	11,519	13,810	650	North-West Frontier.	
3,172	5,462	...	...	2,974	1,981	1,139	10,001	Ajmer.	
...	...	...	...	7	1,131	988	16,332	Baluchistan.	
4,224	60,500	454,800	439,675	398	354	2,898	2,292	Andamans.	
1,143,076	115,736,834	2,657,586	13,498,275	2,13,350	24,67,850	7,55,578	7,81,341	Total Bengal	1907-08.
1,112,862	119,158,746	3,060,897	12,170,911	1,50,434	24,13,803	3,99,873	7,55,888		1906-07.
9,343,675	35,145,016 (b)	156,352	12,793	71,237 (c)	14,99,671 (c)	7,416	42,675 (c)	Madras (d).	
10,540	6,900,113	173,213	8,649,550	47,984	6,86,265	5,141	5,60,733	Bombay (e).	
10,497,291	157,781,963	2,987,151	22,160,618	3,32,571	46,53,786	7,68,135	13,84,749	Grand Total	1907-08.
7,071,693	158,269,385	3,222,567	12,830,125	2,73,317	44,87,292	4,05,967	14,23,443		1906-07.

(a) Bamboos shown in tons in the Northen Circle have as usual been converted at the rate of 700 bamboos to the ton.

(b) Excluding 184 cart loads of dry bamboo.

(c) These figures are taken from Form 63 and do not always agree with the figures in Conservators' report.

(d) Compiled from paragraph 32 of Board's Proceedings reviewing the administration report.

(e) The outturn shown here is exclusive of 340 trees and 182 kandies of sandalwood.

APPENDIX XIX.

[*Vide* paragraphs 39 to 42.]

Comparative Statement of Revenue and Expenditure.

Province.	Revenue.		Surplus.		Deficit.		Proportion of Surplus to Gross Revenue.	Net Revenue per square mile of and under control of Forest Department.
	1907-08.	Average for preceding 5 years.	1907-08.	Average for preceding 5 years.	1907-08.	Average for preceding 5 years.		
	₹	₹	₹	₹	₹	₹	Per cent	₹
Imperial	7,666	4,427	...	...	92,538	82,904	...	...
Bengal	11,97,650	11,34,729	4,84,256	4,83,327	...	...	40·4	68
United Provinces . . .	24,09,745	23,27,836	12,15,732	10,88,065	...	...	50·4	292
Punjab	14,57,449	17,13,117	2,80,753	6,05,731	...	...	19·2	30
Burma	86,63,939	88,21,946	51,12,457	53,64,465	...	...	59·0	39
Eastern Bengal and Assam .	14,30,447	8,99,659	6,30,074	3,87,978	...	...	44·0	21
Central Provinces and Berar .	22,90,128	21,09,242	7,06,721	8,07,462	...	...	30·8	32
Coorg	2,74,756	2,17,835	1,69,937	1,25,025	...	...	61·8	326
North-West Frontier . .	2,38,490	1,21,138	1,50.090	45,427	...	...	63·2	636
Ajmer	29,864	14,851	11,676	...	...	1,658	39·0	78
Baluchistan	24,829	20,586	...	...	6,429	3,749	...	...
Andamans	2,91,822	5,13,750	62,555	2,09,475	...	...	21·4	32
Forest School . . .	6,137	3,501	...	...	1,51,901	77,550	...	...
Forest Surveys . . .	...	693	...	...	27,060	30,623	...	...
Total Bengal .	1,83,22,972	1,79,03,311	85,46,323	89,20,471	...	...	46·6	41
Madras	38,93,830	28,71,807	11,12,973	8 07,838	...	...	28·5	56
Bombay	36,46,177	30,01,745	16,90,750	11,07,254	...	...	46·3	129
Grand Total 1907-08 .	2,58,62,979	2,37,76,863	1,13,50,046	1,08,35,563	...	...	43·8	47
Grand Total 1906-07 .	2,64,91,486	2,20,43,308	1,24,27,687	97,65,510	...	...	46·9	52

APPENDIX XX.

[*Vide* paragraph 42.]

Estimated value of Forest Produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Minor Produce.	Grass and Grazing.	Total.
	R	R	R	R	R	R
Bengal	9,339	58,525	4,844	43,060	66,092	1,81,860
United Provinces . .	48,096	58,587	913	3,967	86,170	1,97,733 (a)
Punjab	45,815	6,21,668	11	48,113	3,28,031	10,43,638
Burma	1,40,537	7,121	35,036	23,953	1,30,125	3,36,772
Eastern Bengal and Assam .	33,362	70,994	9,085	1,71,600	2,16,013	5,01,054
Central Provinces including Berar.	86,830 (b)	23,764	16,376	48,881	2,68,647	4,44,498
Coorg	...	...	...	...	...	...
North-West Frontier .	450	1,540	...	100	7,708	9,798
Ajmer	378	41	...	27	16,411	16,857
Baluchistan . . .	1,520 (c)	260	...	988	16,332	19,100
Andamans . . .	2,833	7,748	558	5,190	...	16,329
Total Bengal .	3,69,160	8,50,248	66,823	3,45,879	11,35,529	27,67,639
„ Madras .	51,169	5,236	1,146	50,091 (d)	...	1,07,642
„ Bombay .	91,708	7,86,849	1,69,323	2,80,391	7,49,767	20,78,038
Grand Total 1907-08 .	5,12,037	16,42,333	2,37,292	6,76,361	18,85,296	49,53,319
Grand Total 1906-07 .	3,70,133	6,51,011	1,62,430	5,62,515	16,59,343	34,05,432

(*a*) Excludes famine concessions to the value of R7,858 under grazing and R70,200 under minor produce.
(*b*) Includes value of 1,769,495 c. ft. of fuel removed by right-holders in Berar Circle.
(*c*) „ „ 1,126 c. ft. of fuel.
(*d*) „ „ grass and grazing fees.

APPENDIX XXI.

[*Vide* Paragraph 42.]

Details of Revenue and Expenditure.

				₹
Gross Receipts				
		(*a*) Wood		1,93,99,939
		(*b*) Minor forest produce		21,76,878
		(*c*) Forest stamps and commutation fees for forest produce		7,94,133
		(*d*) Grazing		22,13,199
		(*e*) Revenue from forests not managed by Government		4,16,058
		(*f*) Miscellaneous		8,62,772
		TOTAL REVENUE		2,58,62,979
Expenditure	A Recurring	(*a*) Administration	(i) Superior Staff	27,33,520
			(ii) Exchange Compensation Allowance.	8,332
			(iii) Subordinate Staff (including Rangers, Foresters and Guards).	23,62,546
			(iv) Office Establishments (including Contingencies).	12,55,437
		(*b*) Working	(1) Extraction	36,41,748
			(2) Roads and Buildings	12,60,238
			(3) Fire-protection	5,58,682
			(4) Cultural operations	6,54,422
			(5) Live-stock, stores and plant.	5,37,065
			(6) Working-Plans	65,997
			(7) Rent for leased forests	6,40,083
			(8) Miscellaneous	1,77,301
		(*c*) Expenditure on realization of revenue from forests not managed by Government.		24,484
		(*d*) Forest Science and Education (including all "A" and "B" charges of Forest Research Institute and College).		1,58,038
		Total		1,40,77,893
	B Extraordinary	(*e*) Forest Settlement		79,756
		(*f*) Forest Surveys		2,18,915
		(*g*) Forest Demarcation		1,36,369
		Total		4,35,040
		GRAND TOTAL EXPENDITURE		1,45,12,933
		Net Revenue		1,13,50,046

APPENDIX XXII.

Summary of Revenue and Expenditure of the Forest Department in India for the financial year 1907-08.

APPEN

[*Vide* paragraphs

Summary of Revenue and Expenditure of the

Budget Heads.	(a) Imperial.	Bengal.	United Provinces.	(b) Punjab.	(c) Burma (Upper and Lower.)	Eastern Bengal and Assam.	Central Provinces including Berar.	Coorg.	North-West Frontier Province.
	R	R	R	R	R	R	R	R	R
REVENUE.									
I.—Timber and other produce removed from the forests by Government agency.	1,751	50,628	2,06,934	5,68,679	33,74,248	3,36,219	1,51,815	2,11,014	1,13,711
II.—Timber and other produce removed from the forests by consumers or purchasers.	5,700	11,01,552	21,10,160	7,52,279	46,60,996	8,85,363	20,66,272	47,377	1,10,825
III.—Drift and waif wood and confiscated forest produce.	...	5,506	17,060	50,470	2,36,884	29,630	1,869	...	3,728
IV.—Revenue from forests not managed by Government.	...	...	11,045	2,649	2,67,185	1,09,555	1,492	...	3,735
V.—Miscellaneous . . .	215	39,964	64,546	83,372	1,24,676	69,680	68,680	16,365	6,491
Total Revenue .	7,666	11,97,650	24,09,745	14,57,449	86,63,989	14,30,447	22,90,128	2,74,756	2,38,490
EXPENDITURE.									
A.—Conservancy and Works.									
I.—Timber and other produce removed from the forests by Government agency.	...	16,672	98,962	2,12,321	9,37,819	1,56,403	96,597	17,859	31,606
II.—Timber and other produce removed from the forests by consumers or purchasers.	...	96,646	43,321	2,885	67,751	16,900	1,08,635	...	192
III.—Drift and waif wood and confiscated forest produce.	...	1,742	6,328	12,831	97,257	1,504	27	...	11
IV.—Revenue from forests not managed by Government.	...	...	4,310	...	1,454	18,422	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	...	5,300	1,88,398	3,52,483	...	39,650	...	...	13,962
VI.—Live-stock, stores, tools and plant.	...	26,079	40,237	10,373	1,30,315	29,475	58,662	8,254	1,192
VII.—Communications and buildings	...	70,735	1,69,959	1,16,350	2,15,487	1,10,918	2,64,445	5,036	6,197
VIII.—Demarcation, improvement, and extension of forests.	111	1,74,109	1,27,994	47,719	5,48,425	64,617	1,63,627	14,700	2,370
IX.—Miscellaneous . . .	...	4,322	16,041	10,526	30,440	10,423	17,904	854	859
Total A.—Conservancy and Works .	111	3,95,605	6,95,550	7,65,488	20,28,948	4,48,312	7,09,897	46,703	56,389
B.—Establishments.									
I.—Salaries	75,512	2,46,749	4,00,321	3,17,651	12,57,425	2,71,841	7,22,057	49,760	25,355
II.—Travelling allowances . .	15,080	44,027	61,393	59,251	1,91,941	59,793	70,668	7,240	4,271
III.—Contingencies . . .	9,501	27,013	36,749	34,306	73,218	20,427	80,785	1,116	2,385
Total B.—Establishments .	1,00,093	3,17,789	4,98,463	4,11,208	15,22,584	3,52,061	8,73,510	58,116	32,011
Grand Total of Expenditure .	1,00,204	7,13,394	11,94,013	11,76,696	35,51,532	8,00,373	15,83,407	1,04,819	88,400
Surplus .	...	4,84,256	12,15,732	2,80,753	51,12,457	6,30,074	7,06,721	1,69,937	1,50,090
Deficit .	92,538	...	...	...	...	...	...	...	...

(a) Includes R7,666 of Revenue and R1,599 of
(b) Including Chamba which was retroceded to
(c) Excludes figures for

DIX XXII.

39 and 40.]

Forest Department in India for the financial year 1907-08.

Ajmer.	Baluchistan.	Andamans.	Forest Research Institute and College.	Forest Surveys (Imperial).	Total Bengal Presidency.	Madras.	Bombay.	Grand Total.	Budget Heads.
R	R	R	R	R	R	R	R	R	
									REVENUE.
6,828	12,171	2,79,539	...	...	53,13,537	14,16,870	11,54,348	78,84,755	I.—Timber and other produce removed from the forests by Government agency.
21,950	3,048	6,125	...	...	1,17,71,647	22,96,155	23,65,138	1,64,32,940	II.—Timber and other produce removed from the forests by consumers or purchasers.
59	49	...	...	...	3,45,255	14,650	5,922	3,65,827	III.—Drift and waif wood and confiscated forest produce.
...	9,321	...	...	...	4,04,982	...	11,076	4,16,058	IV.—Revenue from forests not managed by Government.
1,027	240	6,158	6,137	...	4,87,551	1,66,155	1,09,693	7,63,399	V.—Miscellaneous.
29,864	24,829	2,91,822	6,137	...	1,83,22,972	38,93,830	36,46,177	2,58,62,979	Total Revenue.
									EXPENDITURE.
									A.—Conservancy and Works
2,408	6,983	1,41,754	...	...	17,19,384	8,41,150	4,44,974	30,05,508	I.—Timber and other produce removed from the forests by Government agency.
98	1	...	...	...	3,36,429	1,22,540	55,912	5,14,881	II.—Timber and other produce removed from the forests by consumers or purchasers.
5	...	...	...	...	1,19,705	1,485	169	1,21,359	III.—Drift and waif wood and confiscated forest produce.
...	298	...	...	...	24,484	...	...	24,484	IV.—Revenue from forests not managed by Government.
...	...	...	...	...	5,99,793	15,882	24,408	6,40,083	V.—Rent of leased forests and payments to shareholders in forests managed by Government.
153	198	37,120	5,483	...	3,47,541	1,60,971	34,036	5,42,548	VI.—Live-stock, stores, tools and plant.
2,011	3,667	4,804	810	...	9,70,419	1,84,139	1,06,490	12,61,048	VII.—Communications and buildings.
1,368	383	6,033	...	26,600	11,78,056	3,77,033	1,59,052	17,14,141	VIII.—Demarcation, improvement and extension of forests.
226	43	505	7,123	...	99,266	8,210	76,948	1,84,424	IX.—Miscellaneous.
6,269	11,573	1,90,216	13,416	26,600	53,95,077	17,11,410	9,01,989	80,08,476	Total A.—Conservancy and Works.
									B.—Establishments.
10,152	15,855	34,865	1,20,494	460	35,48,497	8,24,519	8,82,059	52,55,075	I.—Salaries.
860	2,812	3,770	13,912	...	5,35,018	1,65,687	1,16,994	8,17,699	II.—Travelling allowances.
907	1,018	416	10,216	...	2,98,057	79,241	54,385	4,31,683	III.—Contingencies.
11,919	19,685	39,051	1,44,622	460	43,81,572	10,69,447	10,53,438	65,04,457	Total B.—Establishments.
18,188	31,258	2,29,267	1,58,038	27,060	97,76,649	27,80,857	19,55,427	1,45,12,933	Grand Total of Expenditure
11,676	...	62,555	...	...	85,46,323	11,12,973	16,90,750	1,13,50,046	Surplus.
...	6,429	...	1,51,901	27,060	...	...	...	...	Deficit.

Expenditure on account of Indore.
the Raja on 1st April 1908.
Kheddah Operations.

APPEN

[*Vide* paragraphs

Revenue, Expenditure and Surplus of the Forest Department throughout

(I) REVE

Province.	1883-84.	1884-85.	1885-86	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.
	R	R	R	R	R	R	R	R	R	R	R	R	R
Imperial*	32,907	26,574	14,708	1,186	4,817	4,017	4,759	6,370	6,688	5,240	2,680	4,980	2,690
Bengal	6,94,334	5,71,152	5,97,432	653,634	6,57,794	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710
United Provinces	16,11,383	15,72,319	14,61,495	15,73,556	12,47,454	14,62,802	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860	16,58,250	16,01,340
Punjab	9,10,177	7,49,352	8,50,419	11,27,277	7,86,936	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500
Burma	25,09,275	16,70,982	20,23,859	21,06,741	25,15,773	41,89,233	49,40,786	43,21,968	41,85,414	56,60,000	57,85,100	54,36,780	56,95,830
Eastern Bengal and Assam	2,11,445	1,80,414	1,96,656	2,12,011	2,67,312	3,03,882	3,79,498	3,26,793	3,36,129	3,82,830	4,88,500	4,35,090	4,25,030
Central Provinces and Berar	13,02,987	13,25,821	13,57,376	12,84,322	15,00,412	15,88,382	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280
Coorg	67,822	1,13,233	89,386	99,291	1,27,028	1,36,183	92,753	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	4,752	6,089	14,962	14,081	14,063	5,668	13,897	15,724	20,609	19,030	20,730	16,300	14,930
Ajmer	8,198	10,453	9,697	11,274	14,293	13,574	11,592	15,266	19,799	14,890	14,620	12,840	15,640
Andamans	24,762	22,213	23,944	31,870	1,01,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120
Imperial Forest College	...	73	273	415	777	449	1,237	1,184	1,788	1,980	1,990	2,790	2,310
Forest Surveys (Imperial)	36	234	202	241	40	315	220	2,104	257	520	2400	80	510
Total	73,98,078	62,48,412	66,40,409	71,18,899	72,40,791	95,33,255	1,06,08,249	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14,52,140
Madras	9,43,701	11,66,916	11,98,650	12,46,911	13,74,920	15,15,006	15,57,627	17,95,408	16,91,216	15,77,210	19,47,180	18,94,030	21,10,570
Bombay	25,03,100	27,74,812	33,66,286	30,32,676	30,32,577	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670
Grand Total	1,08,54,882	1,01,90,170	1,12,05,345	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380

(II) EXPEN

Imperial*	93,266	96,206	88,245	86,299	78,626	86,199	81,311	85,414	65,788	1,07,270	80,840	84,950	80,410
Bengal	3,82,813	4,11,915	3,70,399	4,22,781	3,90,368	3,76,270	3,98,150	4,14,001	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070
United Provinces	10,41,185	10,20,101	9,74,519	9,19,580	8,30,748	8,44,544	9,63,151	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860
Punjab	6,53,146	5,58,070	6,75,483	7,16,510	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420
Burma	12,17,824	12,12,233	11,50,952	10,78,018	11,53,846	20,17,073	16,06,644	13,88,789	16,98,980	18,05,000	18,62,500	19,17,990	19,33,600
Eastern Bengal and Assam	1,99,562	1,97,699	2,11,494	2,12,267	2,26,892	2,09,905	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140
Central Provinces and Berar	6,07,880	6,83,274	6,47,614	7,16,469	7,78,802	6,62,864	8 79,458	9,01,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850
Coorg	75,033	76,951	65,690	74,088	92,629	80,175	72,420	65,818	86,860	73,090	86,890	86,140	85,840
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	16,911	13,266	15,799	17,836	17,753	15,994	17,962	29,450	30,497	55,620	63,730	40,910	41,770
Ajmer	14,574	16,316	16,469	20,744	18,897	15,676	12,701	12,720	13,986	15,000	15,900	14,900	15,730
Andamans	12,161	22,760	37,035	25,769	62,679	57,295	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020
Imperial Forest College	...	22,568	24,239	30,831	33,129	32,961	29,646	35,191	44,347	50,400	65,530	65,980	67,950
Forest Surveys (Imperial)	30,940	19,823	19,180	28,348	32,868	22,164	21,188	24,324	26,882	22,160	27,900	29,840	29,950
Total	43,55,985	43,51,282	42,97,118	43,49,560	43,75,149	52,15,005	50,80,590	49,46,325	54,38,471	56,70,870	59,05,980	59,19,020	59,28,610
Madras	7,86,723	8,96,505	9,37,972	11,53,122	11,29,212	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350	14,45,610
Bombay	15,64,172	17,78,723	18,29,461	19,52,910	19,44,005	16,93,962	17,70,691	18,69,887	19,31,457	19,01,970	20,71,940	20,67,920	19,58,390
Grand Total	67,06,880	70,26,510	70,74,551	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610

(III) SUR

Imperial*	−65,359	−69,732	−73,537	−82,113	−73,779	−82,182	−76,552	−79,044	−59,100	−1,02,030	−78,160	−79,970	−77,720
Bengal	3,06,521	1,59,237	2,27,033	2,30,853	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,98,280	4,52,640
United Provinces	5,69,498	5,52,218	4,86,976	6,53,976	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480
Punjab	2,57,031	1,91,282	1,74,936	4,10,767	1,09,024	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080
Burma	12,91,451	4,58,749	8,72,907	10,28,723	13,61,927	21,72,160	33,34,142	29,33,179	24,86,434	38,55,000	39,22,600	35,18,190	37,62,230
Eastern Bengal and Assam	11,883	−17,285	−14,838	−276	40,420	93,977	1,22,369	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890
Central Provinces and Berar	6,95,107	6,42,047	7,09,762	5,67,853	7,21,610	7,25,518	7,17,264	7,96,095	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430
Coorg	12,799	36,282	23,696	25,203	54,399	56,008	20,333	69,743	96,037	1,07,590	86,900	66,910	49,410
North-West Frontier Province	...	...	...	...		...		...	...	...	...	...	...
Baluchistan	−12,159	−7,177	−837	−3,755	−3,690	−10,326	−4,065	−13,726	−9,888	−36,590	−43,000	−24,610	−26,840
Ajmer	−6,376	−5,860	−6,772	−9,470	−4,604	−2,102	−1,109	2,546	5,813	−110	−1,280	−2,060	−30
Andamans	12,601	−547	−13,091	6,101	41,383	48,780	67,220	28,274	92,429	1,29,280	1,97,240	−8,250	30,100
Imperial Forest College	...	−22,495	−23,966	−30,416	−32,352	−32,512	−28,409	−34,007	−42,559	−48,420	−63,540	−63,190	−63,640
Forest Surveys (Imperial)	−30,904	−19,589	−18,978	−28,107	−32,828	−21,849	−20,968	−22,220	−26,625	−21,640	−27,660	−29,760	−29,440
Total	30,42,093	18,97,130	23,43,291	27,69,339	28,65,642	43,18,250	55,27,659	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530
Madras	1,66,971	2,70,411	2,60,678	93,789	2,45,708	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960
Bombay	9,38,928	9,96,119	15,26,825	10,79,766	10,88,572	11,56,228	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280
Grand Total	41,47,992	31,63,660	41,30,794	39,42,894	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770

* Includes pay of Inspector General of Forests, certain home

DIX XXIII.

39 to 42.]

India during the 25 (financial) years from 1883-84 to 1907-08.

NUE.

1896-97.	97-98.	1898-99.	1899-1900	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	PROVINCE.
R 4,100	R 19,130	R 17,540	6,090	R 2,463	R 3,484	R 3,659	R 7,455	R 3,768	R 7,255	R ...	R 7,666	Imperial.*
13,70,850	11,89,280	9,72,310	11,38,910	12,33,339	12,92,237	12,56,274	10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	Bengal.
14,44,820	13,86,670	15,68,040	16,14,740	15,65,463	17,15,508	20,25,324	22,80,446	23,97,318	24,33,428	25,02,664	24,09,715	United Provinces.
11,07,720	10,68,470	14,74,430	14,00,770	13,50,842	14,47,558	15,86,408	17,17,787	18,74,443	17,81,653	16,05,284	14,57,449	Punjab.
63,78,950	72,15,260	83,50,890	78,12,050	80,54,444	58,73,938	67,39,053	82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	Burma.
4,36,440	3,84,820	3,98,180	5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,147	Eastern Bengal and Assam.
12,91,140	11,80,400	14,34,940	12,97,490	12,65,614	15,79,116	16,84,428	19,98032	20,13,459	24,49,131	24,01,159	22,90,128	Central Provs. and Berar.
93,000	1,30,910	1,55,070	1,62,410	1,37,596	1,70,242	1,90,738	24,031	1,93,087	2,45,419	2,35,909	2,74,756	Coorg.
...	...	...	...	...	13,012	1,01,123	1,01,833	90,991	1,28,529	1,83,214	2,38,490	N.-W. Frontier Province.
15,460	15,040	14,920	17,060	16,956	14,712	19,336	18,363	22,555	21,481	21,185	24,829	Baluchistan.
12,370	15,540	14,420	10,270	10,646	6,865	8,736	13,881	17,297	15,002	18,335	29,864	Ajmer.
3,62,870	4,33,710	2,29,460	2,60,600	2,77,886	2,66,903	3,26,035	4,32,381	6,20,796	5,82,511	6,07,027	2,91,822	Andamans.
2,850	2,890	2,360	3,210	3,697	3,545	3,252	3,038	3,557	3,080	4,579	6,137	Imperial Forest College.
400	80	290		327	473	3,034	431	...	...	...	...	Forest Surveys (Imperial)
1,25,20,470	1,30,42,340	1,46,32,850	1,42,92120	1,44,68,791	1,29,06,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	Total.
23,03,330	21,36,490	21,10,520	23,02,290	23,40,170	25,43,430	26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	Madras.
30,32,710	26,16,660	22,95,150	24,15,200	29,61 529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,993	34,22,481	36,46,177	Bombay.
1,78,56,510	1,77,95,490	1,80,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,774	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	GRAND TOTAL.

DITURE.

78,960	84,300	85,460	96,550	83,578	79,539	85,017	89,345	83,058	83,767	95,472	1,00,204	Imperial.
6,90,040	6,53,440	4,86,320	5,45,210	5,70,806	6,57,131	6,38,014	7,03,508	6,88,589	5,93,509	6,38,386	7,13,394	Bengal.
9,06,340	9,17,850	9,72,030	9,42,380	9,63,439	10,08,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,94,013	United Provinces.
7,23,300	7,71,940	8,55,340	12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	12,63,664	11,44,403	11,76,696	Punjab.
21,28,820	21,96,610	24,26,190	24,47,440	26,54,717	26,46,457	28,90,263	33,52,401	34,46,924	39,38,063	36,59,753	35,51,532	Burma.
2,82,010	2,88,830	3,05,360	3,57,140	3,47,972	3,29,112	3,27,498	4,25,484	5,03,658	5,93,910	7,07,860	8,00,373	Eastern Bengal and Assam.
11,92,860	11,65,490	11,09,400	12,75,820	11,65,866	12,00,904	12,57,288	12,80,966	13,20,615	13,07,153	13,42,878	15,83,407	Central Provs. and Berar.
71,630	87,020	80,100	74,220	70,905	82,333	89,437	92,191	83,820	95,748	1,02,855	1,04,819	Coorg.
...	...	...	...	...	19,510	54,088	60,603	74,958	95,258	93,650	88,400	N.-W. Frontier Province.
29,770	27,330	27,760	28,680	29,254	24,480	23,240	21,697	24,672	25,743	26,322	31,258	Baluchistan.
22,010	14,670	16,300	15,350	16,782	15,927	16,377	16,680	15,641	17,131	16,715	18,188	Ajmer.
3,16,600	2,47,340	1,38,400	1,40,940	1,40,137	2,04,667	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	Andamans.
67,380	60,920	63,370	73,550	71,238	76,290	66,338	59,339	61,424	80,669	1,37,466	1,58,038	Imperial Forest College.
31,970	33,950	33,970	33,980	33,991	33,730	33,985	33,935	28,229	30,044	30,389	27,060	Forest Surveys (Imperial).
65,41,690	65,49,690	66,00,000	72,42,720	70,36,028	73,17,154	77,37,338	86,40,126	90,77,954	98,65,926	95,92,956	97,76,649	Total.
15.34,300	15.72.850	15,94,670	16.53.530	17.15.431	17.09.554	18,35.552	17.50.930	19,86.098	22,66,602	24.80.660	27.80.857	Madras.
19,69,160	20,73,190	18,39,250	21,28,430	24,08,581	17,19,680	16,76,441	17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	Bombay.
1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,933	GRAND TOTAL.

PLUS.

—74,860	—65,170	—67,920	—90,460	—81,115	—76,056	—81,358	—81,890	—79,290	—76,512	—95,472	—92,538	Imperial.
6,80,810	5.35,840	4.85,990	5.93,700	6,62,533	6,35,106	6,18,283	3,62.015	4,78,883	5,25,033	4,32,473	4,84,256	Bengal.
5,38,430	4,68,820	5,96.090	6,72,360	6.02.024	7,06,769	10,11.326	11,99,008	10,05,735	10.28,246	11,96,013	12,15,732	United Provinces.
3,84,420	2,96,530	5,19,010	1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	Punjab.
42,50,130	50,18,650	59,24,700	53,64,610	58,99,727	32,27,481	38,48.790	49,16.131	55,12,832	63,91,806	61,52,766	51,12,457	Burma.
1.54.430	95.990	92.820	2,10.960	2,01.549	1,83,851	2,52,701	2,50,218	3,12,021	5,12,186	6,12,732	6,30,074	Eastern Bengal and Assam.
98,280	14,910	3,25,540	21,670	99,748	3,78,212	4,27,140	7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	Central Provs. and Berar.
21,370	43,890	74.970	88.190	66,691	87,909	1,01,293	1,31,840	1,09.267	1,49,671	1,33,054	1,69,937	Coorg.
...	...	...	...	...	6,498	47,038	41,230	16,033	53,271	89,564	1,50,090	N.-W. Frontier Province.
—14,310	—12,290	—12,840	—11,620	—12,298	—9,768	—3,904	—3,334	—2,117	—4,262	—5,127	—6,429	Baluchistan.
9,640	870	—1,880	—5,080	—6,136	—9,062	—6,641	—2,796	1,656	—2,129	—1,620	11,676	Ajmer.
45,770	1,86,370	91,060	1,19,660	1,37,749	62,236	44,333	1,66,260	2,78,365	2,46,526	3,11,891	62,555	Andamans.
—64,530	—58,030	—61,010	—70,340	—67,541	—72,746	—63,086	—56,301	—57,867	—77,589	—1,32,907	—1,51,901	Imperial Forest College.
—31,570	—33,730	—33,680	—33,560	—33,664	—33,257	—30,951	—38,504	—28,229	—30,044	—30,389	—27,060	Forest Surveys (Imperial).
59,78,780	64,92,650	80,32,850	70,49.400	74,32,766	55.83.402	67,91,227	81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	Total.
7.69.030	5.63.640	5.15,850	6,48,760	6,24,739	8,33.876	7,78.267	9,06.797	8,43,118	7,01,002	8,10,009	11,12,973	Madras.
10,63,550	5,43,470	4,55,900	2,86,770	5,52,948	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	Bombay.
78,11,360	75,99,760	90,04,600	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	GRAND TOTAL.

charges, and undistributable and petty local items.

APPENDIX XXIV.

(*Vide* paragraph 38.)

Exports of Forest Produce.

Articles of Forest Produce.	Quantity in tons of 20 cwt. In the case of Teak, cubic tons.		Valuation at Port of Shipment in 1907-08.	
	Average of five years 1902-03 to 1906-07.	In 1907-08.	Total.	Per ton.
1	2	3	4	5
			₹	₹
Caoutchouc	171	149	5,78,397	3,882
Lac — Button	1,995	1,976	46,80,489	2,369
Lac — Shell	9,907	13,917	3,32,38,167	2,388
Lac — Stick, seed and other kinds	683	2,245	29,11,935	1,297
Sandal, Ebony and other ornamental woods	(*a*)	(*a*)	12,49,286	...
Cutch and gambier	3,984	4,588	14,49,927	316
Myrabolams	59,435	74,665	58,95,246	79
Teak	55,059	39,539	61,34,670	155
Cardamoms	115	90	2,31,555	2,573
Total in 1907-08			5,63,69,672	
Do. 1906-07			4,96,50,953	

(*a*) Figures are not available.

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REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

FOR THE YEAR

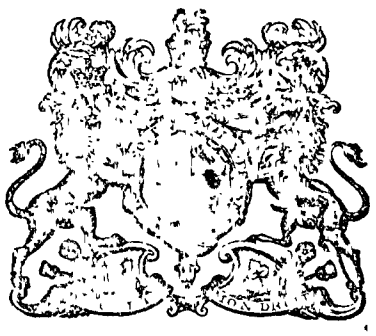
1908-1909

WITH A QUINQUENNIAL SUMMARY

BY

F. BEADON BRYANT,

INSPECTOR GENERAL OF FORESTS TO THE GOVERNMENT OF INDIA



CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1910

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1. Map of India showing distribution of forests and waste lands.
2. Map of India showing progress of Forest Surveys and Working-Plans.

Review of Forest Administration in British India for the year 1908-09.

INTRODUCTION.

SUMMARY OF PROGRESS DURING THE FIVE YEARS 1904-05 TO 1908-09.

The following summary of the progress made in Forest Administration during the quinquennium ending with the year 1908-09 is, in conformity with the usual practice, prefixed to the Annual Review for the last year of the period.

Administration control.

2. The control of the Forest Branch of the General Administration remained in charge of the Department of Revenue and Agriculture.

Mr. S. Eardley-Wilmot, who had been officiating as Inspector General of Forests since the 4th February 1903, was appointed substantively to that post on the 15th August 1904. He continued to hold it until the 9th November 1908, when he retired, except for three months in 1907 when he took privilege leave and Mr. J. H. Lace, Conservator of Forests, 1st grade, officiated, and for a short period early in 1908 when he was on deputation to England. During the latter period Mr. W. F. Perrée, Assistant Inspector General of Forests, carried on the current duties of the Inspector General. Mr. Eardley-Wilmot was made a C.I.E. in January 1908. On Mr. Eardley-Wilmot's retirement Mr. F. Beadon Bryant, Chief Conservator of Forests, Burma, became Inspector General of Forests. Mr. M. Hill, F.L.S., occupied the post of Assistant Inspector General of Forests until the 16th July 1907, Mr. W. F. Perrée from the 17th July 1907 to the 23rd March 1909, and Mr. S. Carr, F.C.H., from the 24th March 1909 to the end of the quinquennium.

Forest Legislation.

3. No Forest legislation of importance has been found necessary during the period under review.

Kheddahs.

4. The operations of the Burma Kheddah Department having proved disastrous from a financial point of view, a prolonged discussion took place in 1908-09 regarding the desirability of abolishing the Kheddahs. It was eventually decided to continue the Department for a further period of three years to 30th September 1911, but that operations should be carried out on a reduced scale. The Chief Conservator of Forests, Burma, was placed in general control of the Department and other changes were made in its organisation, which will, it is hoped, lead to more successful results.

Organization.

5. The period under report has been marked both by a considerable increase in the number of officers in all branches of the Forest Service and by a general improvement in the conditions of service. The pay of the administrative and executive branches of the Imperial Forest Service has been improved, and for the latter a scale of pay based on length of service has been introduced in place of the system of promotion from grade to grade. A similar system for the Provincial Service has been under consideration by the Government of India. The most important appointment permanently created during the quinquennium was that of Chief Conservator of Forests, Burma, which was sanctioned by the Secretary of State in 1905.

Excluding appointments sanctioned for a limited period, of which that of Chief Conservator of Forests in the Central Provinces is the most notable, the posts added to the ultimate strength of the various Provincial cadres were as follows :—

	Imperial Service.	Provincial Service.
Research Institute and College	...	2
Burma	1 (Ch. Consr.) 22	28
Madras	2	...
Bombay	2	3
United Provinces	5	...
Central Provinces	2	11
Bengal	...	1
Eastern Bengal and Assam	5	10
Punjab	1	...
Andamans	...	3
Total	40	58

These comprise 13 India list posts (including some additional posts added to the Research Institute and College staff) which, together with a leave and training reserve of three posts, have been allotted to the various Provincial cadres, and additions due to reorganizations of the cadres in the Provinces mentioned, except Madras and the Punjab for which provinces reorganizations of the Imperial and Provincial cadres have been under consideration by the Government of India. Considerable additions have also been made to the subordinate and clerical staffs in several provinces.

Changes in area.

6. The area under the control of the Forest Department has increased from 232,701 square miles to 241,774 square miles, or from 24 per cent. to 24·5 per cent. of the total area of British India. These areas are classified as follows :—

	At commencement of the period.	At close of the period.
	Sq. miles.	Sq. miles.
Reserved and leased forests	91,567	94,561
Protected forests	9,865	8,835
Unclassed State forests	131,269	138,378
Total	232,701	241,774

Forest Settlement.

7. Forest settlements have continued to receive attention, especially in Burma, and during the last five years 6,448 square miles of reserved and 291 square miles of protected forests have been brought under settlement. Owing, however, to corrections of area, disforestations, etc., the area finally settled at the close of 1908-09 amounted to 98,434 square miles only as compared with 96,466 at the end of 1903-04.

Demarcation.

8. The total length of artificially marked boundaries at the close of 1908-09 amounted to 142,576 miles as compared with 121,501 miles at the commencement of the quinquennium. Progress in all provinces except Bombay has been good.

Forest Surveys.

9. In 1907-08 an important change in the arrangements for forest surveys was given effect to. The Forest Survey Branch was abolished and

forest surveys have since been carried out by the topographical parties of the Survey of India, usually in the course of their ordinary programmes. The general scale of forest surveys was also reduced from 4″ to a mile to 2″ to a mile, though surveys on larger scales can still be arranged for when they are necessary. In such cases, however, and when surveys not included in the topographical programmes are required, the cost is debited to the Forest Department, whereas the cost of surveys on the 2″ scale, carried out in accordance with the sanctioned topographical programmes, is borne by the Survey of India.

During the last five years forest areas aggregating some 14,600 square miles have been surveyed, the total of such areas surveyed up to the end of 1908-09 being 74,045 square miles.

Working-Plans.

10. During the quinquennium Working-Plans (including revised plans) were compiled for 13,510 square miles. The following are the areas under sanctioned Working-Plans at the beginning of 1904-05 and at the close of 1908-09.

	Beginning of 1904-05 sq. miles.	End of 1908-09 sq. miles.
Bengal	24,407	34,652
Madras	5,103	7,207
Bombay	4,170	6,442
Total .	33,680	48,301

Corrections of areas for which Working-Plans have been prepared account for an apparent increase in excess of the area for which plans were compiled during the period under review. Greater progress would have been made in this direction had the staff of trained officers in several provinces been adequate.

Communications and buildings.

11. The average annual expenditure on communications, buildings and other works amounted to ₹10,73,974 during the period under review as compared with ₹5,44,250 during the previous five years. The great increase is sufficient evidence of the fact that considerable attention has been devoted to opening up the forests and to providing the staff with rest-houses and quarters in most provinces. The expenditure in each of the years 1907-08 and 1908-09 exceeded 13½ lakhs.

Forest offences.

12. The number of forest offences reported continues to increase. The average *annual* number during the quinquennium under review was 67,926 as compared with 55,323 during the five years ending with 1903-04 and 40,520 during the period 1894-95 to 1898-99. Cases of injury to the forests by fire show an average annual increase of 22 cases only, which, in view of the increase in the area under fire-protection, may be regarded as satisfactory. Offences of unauthorized fellings and grazing increased by 17 per cent. and 35 per cent. respectively, and offences of a miscellaneous nature increased by 30 per cent.

Fire-protection.

13. During the period under review the average area under systematic fire-protection amounted to 43,221 square miles, the average of failure being 6 per cent. In the previous period the average area under protection was 35,236 square miles, while failures amounted to 8 per cent. The increases in the areas brought under protection occurred principally in the Central Provinces, Eastern Bengal and Assam and Madras.

14. The regulation of grazing in forest areas is a question of the utmost importance, but, although much attention has been given to the subject in recent years, little progress has yet been made towards its solution. On the one hand, it is absolutely necessary to admit cattle to a large proportion of the forest area, while on the other it is generally impossible to satisfactorily regenerate areas heavily grazed over. During the period under review the average area annually open to cattle other than browsers increased by 19,623 square miles or 11 per cent. and that open to browsers by 29,316 square miles or 20 per cent., the average areas open each year being 197,977 square miles and 178,638 square miles respectively. During the same period the average forest area amounted to 237,262 square miles or 23,815 square miles (10 per cent.) more than during the previous quinquennium. There was no change in the proportion of the total forest area open to cattle (83 per cent.) but that open to browsers increased from 70 to 75 per cent. The average number of all animals admitted to graze increased from 12,387,037* in the previous quinquennium to 14,018,458 in the period under review. Of the former number 4,610,897 and of the latter 4,570,517 were browsers, so that there was a decrease amounting to rather less than one per cent. in the number of animals of this class admitted to pasture. There was, however, an increase amounting to 21 per cent. in the number of cattle other than browsers for which grazing was provided, whereas the increase in the area open to such animals amounted to 11 per cent. only. Protection from cattle.

15. The following statement shows the average annual outturn of the forests for the two periods:— Yield and outturn.

		Timber and fuel.	Bamboos.	Minor produce. Value.
		C. ft.	No.	₹
1899-1900 to 1903-04	Bengal	173,687,000	175,712,000	28,54,000
	Madras	19,234,000	33,960,000	11,98,000
	Bombay	43,095,000	4,833,000	7,04,000
	Total	236,016,000	214,505,000	47,56,000
1904-05 to 1908-09	Bengal	171,907,000	147,652,000	37,69,000
	Madras	24,235,000	36,757,000	14,87,000
	Bombay	41,272,000	11,698,000	11,44,000
	Total	237,414,000	196,107,000	64,00,000

The average annual outturn of timber and fuel increased by less than 1 per cent. In Madras the increase was 26 per cent., but in the Bengal Presidency and Bombay decreases of 1 per cent. and 4 per cent. respectively occurred.

The average number of bamboos extracted annually decreased by 9 per cent. Madras and Bombay show increases of 8 per cent. and 142 per cent. respectively, while the Bengal Presidency shows a decrease of 16 per cent. The great increase in Bombay is probably due to the inclusion in the later returns of estimates of the number removed by right-holders, but even now no uniform system of preparing such returns obtains in Bombay.

The most marked feature of the quinquennium is the increase of 35 per cent. in the average value of the minor produce extracted annually. In the Bengal Presidency the increase amounted to 32 per cent., in Madras to 24 per cent. and in Bombay to 63 per cent.

* Average of the 4 years ending with 1903-04, figures for 1899-1900 being incomplete.

16. The average annual financial results for the last two periods were as follows:— Financial results.

		Revenue.	Expenditure.	Surplus.
		R	R	R
1899-1900 to 1903-04	Bengal	1,46,00,000	75,94,000	70,06,000
	Madras	24,91,000	17,33,000	7,58,000
	Bombay	25,67,000	19,42,000	6,25,000
	Total	1,96,58,000	1,12,69,000	83,89,000
1904-05 to 1908-09	Bengal	1,88,96,000	96,15,000	92,81,000
	Madras	33,74,000	24,86,000	8,88,000
	Bombay	34,32,000	20,04,000	14,28,000
	Total	2,57,02,000	1,41,05,000	1,15,97,000

The average gross revenue, expenditure and surplus all show a general increase, the increases in the total for all provinces being 31 per cent., 25 per cent. and 38 per cent., respectively. In the Bengal Presidency the average annual gross revenue increased by 29 per cent., the expenditure by 27 per cent. and the surplus by 32 per cent. In Madras the corresponding increases were 35 per cent., 43 per cent. and 17 per cent., while in Bombay they were 34 per cent., 3 per cent. and 128 per cent., respectively. The comparatively small increase in expenditure in Bombay is chiefly due to the fact that a reorganization of the subordinate service has been pending for many years but has not yet been sanctioned.

17. Great improvements have been made in the Forest School at Dehra Dun, which was raised to the status of a College in 1906. The vernacular course of instruction previously given was abolished and arrangements for the education of the Rangers' classes were at the same time revised. In 1907-08 a third year's course of training was introduced to qualify selected candidates for direct appointment to the Provincial Service. Experience of all these arrangements has shown them to be inadequate and steps are being taken for their improvement. Forest education.

As a consequence of the abolition of the vernacular course at Dehra Dun, the duty of training subordinate officers below the rank of Ranger devolved on Local Governments, and steps have been taken in most provinces to establish suitable institutions for the instruction of Deputy Rangers, Foresters and Guards.

In 1906-07 proposals were sanctioned for the reconstitution of the vernacular Forest School in Burma and for its transfer to Pyinmana. The new rules provide for an English course as well as a vernacular one, and a maximum number of 30 students will be admitted to the school each year.

The question of establishing a Forest College at Coimbatore, where Rangers for the Madras Presidency and the adjacent States can be trained, has been under consideration but no definite arrangements had been sanctioned at the close of 1908-09. Such a College is, however, urgently required to relieve the congestion at Dehra Dun where the number of students is much greater than the staff can deal with adequately.

18. Simultaneously with the constitution of the College at Dehra Dun, an Imperial Research Institute was founded as part of the same institution. A staff of experts, chiefly Forest officers, was appointed to carry out research in sylviculture and forest working-plans and in zoology, chemistry, botany and Research.

economics with special reference to forestry. Considerable progress has been made in many directions, but much of the time of the Research officers has had to be devoted to the education of the large classes of students at the College and research has suffered in consequence. Other defects in constitution have come to light as was only to be expected in an institution in its infancy, but it is hoped that these will be remedied at an early date, when more rapid progress will be possible.

A plan of a main Research Institute building was prepared by the Consulting Architect to the Government of India but has since been abandoned owing to the accommodation provided being considered insufficient and to the unsuitability of the site originally selected. Other arrangements for buildings were under consideration at the close of the quinquennium under review but some time must elapse before the institute can be regarded as complete. Any detailed account of the progress made would be beyond the scope of this review, but it may be stated that 36 publications prepared by the special Research officers were issued before, or were in thepress at, the end of 1908-09.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—Alteration in Area.

[*Vide* Appendices I and II.]

The total area of forest lands under the control of the Forest Department increased during the year under review by 3,965 square miles to a total of 241,774 square miles, or 24·5 per cent. of the area of British India. In addition some 12,193 square miles of forest lands are controlled by other departments.

2. The principal alterations in the area of each class of State forests were as follows:—

(i) *Reserved and Leased Forests.*

A total area of 1,175 square miles was added and 673 square miles were excluded, the net increase being 502 square miles. The most notable changes were the notification of 770 square miles of new reserves in Burma, of 47 square miles in the Punjab, of 97 square miles in Eastern Bengal and Assam, and of 149 square miles in Madras; the disforestation of 337 square miles in Eastern Bengal and Assam on account of the encroachments of temporary cultivators, disforestations aggregating 111 square miles in the Central Provinces to provide for the extension of agriculture and the transfer to the management of the Revenue Department of 93 square miles of reserves in Bombay.

(ii) *Unclassed State Forests and Public Forest Lands.*

There was a net increase of 3,481 square miles under these classes of forest. The principal additions were 4,000 square miles in the Chin Hills, Burma, for the control of which an establishment is now employed, and 496 square miles in Baluchistan, neither of these areas having been previously shown in the returns. On the other hand, 770 square miles in Burma and 149 square miles in Madras were transferred to reserved forests and 111 square miles in the Punjab were transferred to the control of the Civil Department.

3. The following statement shows the area of the different classes of forest under the control of the Forest Department at the close of the years 1907-08 and 1908-09:—

Class of forests.	1907-08.	1908-09.	Difference.
	Sq. miles.	Sq. miles.	Sq. miles.
Reserved forests	93,316	93,818	+502
Leased „	743	743	...
Protected „	8,853	8,835	−18
Unclassed State forests and Public Forest lands	134,897	138,378	+3,481
Total .	237,809	241,774	+3,965

2.—Forest Settlements.

[*Vide* Appendix III.]

4. The area finally settled was 1,230 square miles compared with 1,798 square miles in the previous year and 1,812 square miles in 1906-07. The area taken in hand was 824 square miles compared with 3,575 square miles in 1907-08. The total area undergoing settlement at the close of the year was 6,352 square miles compared with 6,902 square miles at the close of 1907-08. The approximate cost of settlement was R42,909 compared with R48,947 in the previous year. Burma, which is the only province in which extensive settlement operations are in progress, accounts for 892 square miles of reserves finally settled during the year, 777 square miles of the area taken in hand and 5,171 square miles of the area undergoing settlement at the close of the year.

3.—Demarcation.

[*Vide* Appendix IV.]

5. Although the area of reserved and protected forests increased by 484 square miles, the total length of boundaries at the close of the year under review was 3,101 miles less than at the close of 1907-08, being 166,269 miles. The Punjab shows a decrease of 3,695 miles, chiefly owing to the omission from the return of 3,533 miles of the boundaries of undemarcated forests in Kangra on the ground that they are incapable of demarcation. Bombay also shows a decrease of 975 miles, which is not explained but which is probably due to the transfer of 93 square miles of reserves to the Revenue Department. In Burma there was a considerable increase due to new reservations but the changes in other provinces are of little importance. The total length of the actually demarcated boundaries rose from 141,227 miles to 142,576 miles ; the length still remaining to be demarcated amounts to 6,117 miles (of which 4,992 miles are in Bombay) compared with 10,653 miles at the close of the previous year. Most of this decrease is, however, due to the alteration in the Punjab return already referred to. There was little change in the length of boundaries not requiring demarcation. The length of new boundaries demarcated rose from 2,421 miles to 2,727 miles, of which 1,037 miles were in Burma and 970 miles in Bombay. It is satisfactory to note that somewhat better progress was made in Bombay and that in Burma, in spite of the fact that 777 square miles of new reserves were notified, the length of boundaries remaining undemarcated was reduced from 726 miles to 264 miles. The total expenditure on new work amounted to R46,362 and on repairs to R97,774, compared with R57,006 and R89,154 respectively in the previous year. The average cost for new work fell from R23·5 in 1907-08 to R17 in 1908-09; in both years repairs were carried out at an average cost of R1·6 per mile. The average cost per mile of new work varies greatly in the different provinces. Calculations based on the figures given in Appendix IV show it to have been R2·6 in Bengal, R18·6 in the United Provinces, R13·7 in Burma, R49·9 in Madras, and R6·6 in Bombay. In some of the other provinces similar averages would be misleading owing to the fact that improvements in existing boundaries already shown as demarcated have been treated as new work.

4.—Forest Surveys.

[*Vide* Appendices V and VI.]

6. During the year forest survey operations were conducted by the various topographical parties, in almost every instance in the ordinary course of the

season's programme. The surveys were for the most part on the 2″ scale, but a few small areas were done on the 1″ scale, and boundary surveys on the 4″ scale were carried on over a considerable area. The revision of a small area previously surveyed on the 4″ scale by the Forest Survey Branch was also effected.

7. The following areas were topographically surveyed during the year:—

Presidency.	1″=1 Mile. Sq. miles.	2″=1 Mile. Sq. miles.	4″=1 Mile. Sq. miles.	Total. Sq. miles.	Remarks.
Bengal . . .	29	924	531(*a*)	1,484	(*a*) Includes 461 linear miles.
Madras . . .	...	563	...	563	
Bombay . . .	...	394	205(*b*)	599	(*b*) Linear miles.
Total .	29	1,881	736	2,646	

The entire cost of the above surveys was borne by the Survey of India with the exception of that of the Mosit reserve, the cost of which is debitable to the Forest Department.

8. The details of surveys carried out in the various provinces are given in the following paragraphs:—

Central Provinces (*Berar Circle*).—In the course of the 1″ topographical survey of Berar, No. 2 Party surveyed on the 2″ scale all the A and B class forests falling in the area under survey in the districts of Akola and Yeotmal, and their boundaries were traversed on the 4″ scale. The area surveyed on the 2″ scale amounted to about 160 square miles, and the boundary traversing to 461 linear miles.

North-West Frontier Province.—No. 12 Party, in the course of its ordinary operations, surveyed the Manakrai reserve, and parts of the Tanglai and Lachi Khan reserves in the Hazara division, on the 1″ scale. The total area amounted to 8 square miles. In addition to this, 4″ forest surveys previously done by the Forest Survey Branch of a part of the Masar reserve, the Batrasi and Tandiani reserves, and parts of Dunga Gali and Samundar reserves, Hazara district, were revised on the same scale, new details inserted, all the roads classified and perennial water shown. The total area thus revised on the 4″ scale amounted to 70 square miles.

Punjab.—Part of the Gainthal reserve, in Rawalpindi district, amounting to 0·8 square mile, was surveyed by No. 12 Party on the 1″ scale.

Burma (*Northern Circle*).—Two parties surveyed forest areas in Burma in the course of their regular operations. No. 3 Party completed 39 square miles on the 2″ scale in the Myittha and Lower Chindwin Forest divisions, and No. 10 Party surveyed 152 square miles on the same scale in the Bhamo, Mu and Upper Chindwin divisions. As these surveys were conducted in the course of the regular topographical survey, their cost will be borne by the Survey of India. As arranged last year, No. 10 Party surveyed the Mosit reserve in the Bhamo division, area 106 square miles, on the 2″ scale, in advance of its programme. This being a special survey, its cost will be borne by the Forest Department.

Eastern Bengal and Assam (*Eastern Circle*).—Parts of the Sonai, Inner Line and Katakhal reserves, in the Cachar division, comprising an area of 367 square miles, were surveyed on the 2″ scale by No. 20 Party. Owing to the difficult nature of the ground, the early rains and the presence of a man-eating tiger, the programme of the party was not completed. The work will be completed next season.

Madras Presidency (*Southern Circle*).—Forest Surveys on the 2″ scale were carried on during the year by No. 19 Party in the following divisions: in South Malabar, aggregating 201 square miles; in the Nilgiris, 209 reserved forests of the total area of 357 square miles were surveyed; in North Coimbatore, the Akkur reserve, area 2 square miles, and in Central Coimbatore, the Nellimalai reserve, area 3 square miles, were surveyed. These two reserves have been afforested since the 4″ survey was carried out. The total forest area

thus surveyed in the Madras Presidency is 563 square miles, and the whole cost is debitable to the Survey of India.

Bombay Presidency (Central Circle).—An area of about 394 square miles of forest, falling within Shirpur taluk of the Western Khandesh district and Chopda and Yaval taluks of the Eastern Khandesh district, was surveyed on the 2″ scale by No. 17 Party. The boundaries of these areas, about 205 linear miles, were surveyed on the 4″ scale. The area is a part of the Satpura reserves, and is a continuation of the work commenced in 1906.

Coorg.—In Coorg, an area of 56 square miles of forest was surveyed on the 2″ scale. It is hoped that the Coorg survey will be completed in 1909-10.

9. The number of maps issued to Forest and other officials and to the public during the year was 7,689, of which 3,335 were coloured maps. The number issued last year was 11,177. The value of the maps issued was, however, considerably greater, the amount realised by the sale of maps being R3,312, as against R2,018 realised last year, and R1,750 in 1906-07. Of this amount, R2,244 was adjusted by book debit and R1,068 accrued from sales to private individuals and trading companies. Besides the Head-Quarters charges, a sum of R9,935 was debited to the Forest Department on account of mapping and publishing charges and the cost of survey of the Mosit reserve.

The following is a brief summary of the mapping executed during the year:—Of the standard sheets of Forest Surveys, 62 were published, 17 were in the press and 94 were in various stages of preparation. Of the working-plan and other special forest maps, 8 were published, 9 were in the press and 19 were in hand. Two general maps of India, on the 48-mile scale, were put in hand for the Inspector General of Forests' Quinquennial Report for 1904-09, and also six on the 96-mile scale, showing the distribution of the principal Indian trees. Provincial forest maps of Burma and the Central Provinces on the 32-mile and 16-mile scales respectively were published. A similar map of Bengal on the 32-mile scale was completed and sent to press, and one of the Punjab on the 16-mile scale was commenced. The drawing of the new district forest maps of the Madras Presidency, on the quarter-inch scale, which was commenced last year at the instance of the Conservators of the three Circles, has made good progress during the year. Arrangements are being made to publish these district maps in the first place as ordinary editions, omitting all special forest features. Blue impressions of 18 of the new 2-inch standard sheets have been received during the year for the insertion of additional forest details in order to publish them as special forest editions. Of these, two have been published and the remainder are in hand. Out of the 36 blue impressions of two-inch sheets received last year, 16 have been published and distributed, 6 returned to press for publication and the others are in various stages of progress. In future, the forest details are to be inserted on *black* impressions of the sheets, carefully printed on thick drawing paper, instead of on blue prints as heretofore. This method has the advantage of furnishing originals for photography complete in every respect, thus saving the trouble of making separate helio plates from the blue prints containing the forest information only, and of sur-printing from these plates upon previously printed copies of the public edition. During the year, 30,944 copies of forest maps were received from the Map Record and Issue Office, Calcutta, and other offices, for storage.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation of Management.

Working-Plans.

[*Vide* Appendices VII, VIII and IX.]

10. In the Bengal Presidency Working-Plans for areas amounting to 3,162 square miles were sanctioned during the year, including revised plans for 338 square miles. The most important additions to forests under regulated working were made in Burma and the Central Provinces, where 1,344 and 959 square miles respectively were brought under Working-Plans. Plans for 3,635 square miles were in course of compilation at the close of the year, of which 372 square miles represent revision of existing plans.

In the Madras Presidency Working-Plans for 285 square miles were sanctioned and plans for 3,851 square miles were under preparation.

In the Bombay Presidency plans for 344 square miles were sanctioned and plans for 579 square miles were in course of preparation.

11. The following figures show the total areas under Working-Plans at the close of the year :—

	At commencement of the year. Sq. miles.	Added during the year. Sq. miles.	Total. Sq. miles.
Bengal	31,828*	2,824	34,652
Madras	6,922*	285	7,207
Bombay	6,098	344	6,442
Total in 1908-09 .	44,848*	3,453	48,301
„ 1907-08 .	42,441	2,711	45,152

At the close of the year 185,780 square miles remained without regular Working-Plans, the areas in the Bengal, Madras and Bombay Presidencies being 171,310, 8,512 and 5,958 square miles respectively. It may, however, be remarked that no Working-Plans will be required for some time to come for large areas, chiefly of unclassed state forests, included in the above figures.

2.— Communications and Buildings.

[*Vide* Appendix X.]

(*a*) *Roads and Bridges.*

12. Good progress in the construction and maintenance of communications was made, the total expenditure of the year being ₹5,40,180 as compared with ₹5,49,631 in the previous year and ₹3,90,076 in 1906-07. Of the total amount expended ₹3,23,560 was the cost of new work and ₹2,16,620 that of repairs. In Bengal a reduction of some ₹13,000 in the total expenditure is attributed partly to the roads made being less difficult to construct than in 1907-08, and partly to paucity of the staff rendering it impossible to fully carry out the construction programme. In Eastern Bengal and Assam an expenditure of some ₹13,000 less is chiefly due to no plant for the tramway having been purchased during the year, while a reduction of nearly ₹22,000 in the Central Provinces is consequent on a return to more normal conditions,

* Revised figures.

the scarcity of the previous year having made more labour available than usual and extensive works having been undertaken in order to provide employment. Increases of about R20,000 in Burma, R11,000 in Madras and nearly R13,000 in Bombay are due to normal expansion in opening up the forests. In Burma the construction programme could not be fully worked up to owing to funds being limited; in Bombay progress is still slow, more than three-quarters of the increased expenditure being incurred on improvements and repairs to existing roads. There were no changes of importance in other provinces.

(*b*) *Buildings.*

13. The total expenditure on buildings, including repairs, amounted to R6,53,557 or R8,057 more than in the previous year. New work cost R18,787 less and repairs R26,844 more than in 1907-08, but it may be noted that the expenditure of the latter year on account of new work was R1,02,517 in excess of that for 1906-07. In Bengal, the cost of new work fell by R12,000 owing to the staff being insufficient to properly supervise the work.

In the Punjab a reduction of R24,000 appears to be entirely attributable to less work having been done by the Public Works Department. The Central Provinces spent nearly R13,000 less in the erection of new buildings, but as already explained the circumstances of the previous year were abnormal. Madras and Bombay show increases of nearly R18,000 and R8,000 respectively, and it is satisfactory to observe that in these two Presidencies, as in other Provinces, much attention continues to be paid to providing subordinates with suitable quarters. As regards repairs, the only important variations were increases of R4,000 in Bengal, R7,500 in Burma, R4,000 in Eastern Bengal and Assam, R3,700 in the Central Provinces and R8,600 in Madras.

(*c*) *Miscellaneous Works.*

14. Under this head expenditure amounting to R1,75,987 was incurred as compared with R1,75,692 in the previous year. Fourteen new tanks and 60 wells were completed in the Central Provinces and a number of others were under construction, the total expenditure being R87,579 as compared with R1,15,529 in 1907-08. The explanation of the decrease is the same as that already given for less expenditure on Roads and Buildings. Bengal, the Punjab and Madras show inconsiderable decreases, but in all the other provinces expenditure on miscellaneous works was greater than in the previous year.

3. Protection of Forests.

(*a*) *General Protection.*

[*Vide* Appendices XI and XII.]

15. Forest offences continue to increase, the total number of cases disposed of by the Courts or compounded during the year under review being 9,491 and 52,471 respectively, or 742 and 2,389 respectively more than in 1907-08 and respectively 604 less than and 4,429 in excess of the average for the last three years. The most important variations in the Provincial figures are increases of 1,445 cases in the Central Provinces and 2,228 in Madras and a decrease of 1,220 cases in Bombay. The percentage of convictions to the total number of cases decided by the Courts, was 85·6 as compared with 86·2 in the previous year.

16. The following statement shows the forest offences reported during 1908-09 in the whole of India compared with the average of the three preceding years and the figures for 1907-08 :—

	Average 1905-06 to 1907-08.	1907-08.	In 1908-09.
Injury by fire . . .	4,379	4,679	3,615
Unauthorized felling or appropriation of forest produce.	34,226	35,470	37,238
Unauthorized grazing .	24,823	25,016	26,173
Other offences . .	4,837	4,528	4,274
TOTAL .	68,265	69,693	71,300

Undetected cases decreased by 541 to 7,052 or nearly 10 per cent. of the total. Owing to a generally favourable fire-season, there was a considerable decrease in the number of cases of injury to the forests by fire, and undetected offences of this class decreased by 983. On the other hand, undetected cases of illicit grazing increased by 445, Madras alone accounting for 391 of these. There was little change as regards cases of unauthorized fellings and those of a miscellaneous nature which remained undetected.

(*b*) *Protection from Fire.*

[*Vide* Appendix XIII.]

17. The total forest area under systematic fire protection increased by 737 square miles to 46,432 square miles, or 49 per cent. of the total area of reserves. The only change of importance was an increase of 749 square miles in the Central Provinces. The percentage successfully protected was 95·5 compared with 93·2 in the previous year and 93·7 the average of the preceding five years. The following statement is an abstract of Code Form 58 and shows the results in the various provinces. It may be added that only in Eastern Bengal and Assam and in Coorg were the results distinctly, and in Bombay and Ajmer slightly, worse than in 1907-08. In Coorg, the season was one of the worst on record and the damage done was greatly increased owing to a dense growth of lantana on some of the areas providing food for the flames and thus intensifying the severity of the fires.

PROVINCE.	AREA IN SQUARE MILES.		Proportion of forests under fire protection to total area of reserves.	PERCENTAGE OF FAILURE TO AREA PROTECTED.	
	Attempted.	Protected.		Average of past five years to 1907-08.	1908-09.
Bengal	1,898	1,873	44·8	2·8	1·3
United Provinces	3,206	3,136	78·3	3·4	2·2
Punjab	955	948	43·1	1·8	0·8
Burma	7,457	7,180	31·6	6·6	3·7
Eastern Bengal and Assam . .	(*a*)3,264	(*a*) 2,907	51·7	1·0	10·9
Central Provinces including Berar . .	11,564	11,470	52·7	4·0	0·8
Coorg	208	189	40 0	0·9	9·6
North-West Frontier	85	(*b*)85	36·01	10·0	0·2
Ajmer	142	(*c*)141	100·0	·6	0·4
Total Bengal .	28,779	27,929	45·1	4·0	2·9
Madras	(*a*)7,505	7,241	4·01	6·6	3·5
Bombay	10,148	9,327	83·3	10·9	9·0
GRAND TOTAL 1908-09 .	46,432	44,497	49·0	6·3	4·5
„ „ 1907-08 .	45,695	42,577	48 8	7·1	6·8

(*a*) Includes partially protected areas.
(*b*) Only 125 acres were burnt.
(*c*) Only 357 acres were burnt.

18. A statement showing the origin of the forest fires reported, so far as this is ascertainable, appears as Appendix XIII*. The number of fires and the area burnt under every head are considerably less than in the previous year and the results of the fire conservancy operations must be regarded as distinctly satisfactory.

(*c*) *Protection from Cattle.*

[*Vide* Appendices XIV and XV.]

19. Out of a total forest area of 241,774 square miles only 41,188 square miles were completely closed to grazing throughout the year ; though browsers were excluded from an additional area of 20,902 square miles. In Madras goats alone were also excluded from a further area of 15,516 square miles ; in other words goats were admitted to graze in 983 square miles only in that Presidency. Except that the area completely closed has increased by some 2,000 square miles, these figures do not differ materially from those of the previous year. The total number of cattle admitted to graze in the Govern ment forests was nearly 14,700,000 or nearly 400,000 less than in the previous year, during which special grazing concessions were granted owing to the prevailing scarcity.

20. The number of cattle impounded during the year was 464,055 compared with 447,821 in 1907-08, an increase of 16,234. In Madras the number increased by 22,763 to 213,802 and in the United Provinces by 4,312 to 15,067. Burma, Eastern Bengal and Assam, Coorg and Baluchistan also show small increases. In the Punjab impoundings decreased by 6,943 to 23,897 and in Bombay by 3,114 to 190,605. In the United Provinces, the Central Provinces, the North-West Frontier Province and Ajmer they were also somewhat fewer than in the previous year.

(*d*) *Protection against injury from natural causes.*

21. It is satisfactory to note that th e favourable monsoon of 1909 appears to have checked for the present any further increase in the extensive damage caused by drought in the United Provinces and to have reduced the damage caused by insects in several provinces. The year was also a favourable one in that injury by frost was comparatively slight, but wind and storms caused much damage in several provinces. In the Simla forests the situation has become serious as a result of attacks by insects and fungi, but remedial measures are being actively carried out and the results are encouraging so far as the insect attacks are concerned. It is unfortunate that no progress has yet been made towards discovering the cause of the ' spike ' disease in Sandal. Climber cutting was extensively carried out as usual in most provinces. The following information has been abstracted from the Provincial reports :—

Bengal.—Damage done by barking deer in past years to seedlings in the Darjeeling forests has necessitated nurseries being fenced with barbed wire and special protection being afforded to transplants put out in the forests. It is now reported that squirrels also do a considerable amount of damage to Cryptomeria and walnut transplants. Damage by frost is

* It will be seen that the total area burnt according to Appendix XIII, does not agree with that in paragraph 17 above. This is due to unexplained discrepancies in the Punjab, Madras and Bombay reports, in some of which the causes of all fires reported, whether they occurred in the protected area or not, appear to be given. The utility of this course is not obvious. Information regarding fires that occur in unprotected areas must be scanty and unreliable and the inclusion of such in the returns serves no useful purpose.

extensive in the Palamau forests but less so in Hazaribagh. As usual wild elephants were the cause of much injury in the Duars forests of Tista and in Angul.

The United Provinces.—The extensive damage caused by the dying off of Sal over large areas was investigated during the year and is believed to be due to the lowering of the permanent water level as a result of a succession of years of deficient rainfall. The heavy rain of April 1909 did an immense amount of good and checked for the present any further increase in the damage. It is hoped that the excessive rainfall of the year under report will go far to permanently remedy the very serious state of affairs. In the Eastern Circle it is estimated that the stock on 10,000 acres is quite dead and that more than 60,000 acres are very seriously affected In the Western Circle the injury is less extensive but the damage to reproduction due to the prolonged drought and to the extensive fires of 1908 is in many places very serious.

The Punjab.—The report discloses a very serious situation in the Simla blue-pine forests which are threatened with extinction by a fungus pest (*Trametes pini*). Energetic steps are being taken to combat the attack by felling and burning or removing the affected trees and there is some hope of being able to confine it to its present location; an insufficient labour supply hampers progress in this direction, Less serious attacks by other fungi are reported from several divisions and are being dealt with. In the Simla Catchment Area the beetle attack has been combated by felling numerous trap trees as suggested by the Forest Zoologist. As a result there has been a marked decrease in the numbers so far as the *Scolytus* and *Buprestid* are concerned, but the *Longicorn* seems to be increasing; active steps are being continued. Similar measures are being taken in Kulu in connection with a *Polygraphus* which is attacking the Blue-pine.

Burma.—As usual the defoliating caterpillars *Hyblœa puera* and *Pyraüsta machœralis* did a certain amount of injury to teak, but no damage of a wide-spread or serious nature is reported. The most destructive insect pest is the 'bee-hole' borer (*Duomitus ceramicus*) which causes extensive damage to teak timber; it appears to be spreading. Local damage by climbers and *spiphytic fici*, by several species of insects and fungi and by floods is also reported.

Eastern Bengal and Assam.—Insects are reported to have caused some injury, but the amount of damage done was very small.

The Central Provinces.—Damage by frost was comparatively slight except in some low-lying localities; in Saugor steady progress continues to be made towards recovery from the severe frost of 1904-05. Wind and wild animals caused a good deal of damage in several localities. In the Balaghat Division the *Hoplocerambyx spinicornis* did more damage than usual to Sal and remedial measures are suggested; in Berar species of *Batocera*, *psilotera* and *Canthara* beetles did much damage in Babul plantations and the various remedial measures employed were not very efficacious, it being very difficult to apply such measures owing to Babul forming impenetrable thickets; other insects seem to have done little damage. In the Northern Circle a systematic campaign for the eradication of the *Loranthus* parasite by lopping the branches of the trees affected was inaugurated and similar measures were employed in the other circles.

Coorg.—For the second year in succession it is reported that there was no spread northward of the 'spike' disease of Sandal, but heavy rain in May 1909 was immediately followed by an increase of the disease in the affected area, in which there was no diminution of casualties. The number of diseased trees uprooted during the year was 23,100 compared with 18,200 in the previous year and an average of 28,200 during the 8 years since operations commenced. *Lantana* is also a source of much damage and its indirect effects as a feeder of forest fires has already been alluded to. A scheme for its systematic eradication is being drawn up.

The reports of the *North-West Frontier Province, Ajmer, Baluchistan* and the *Andamans* contain nothing of particular interest in this connection.

Madras.—The 'spike' disease continued to spread in the Sandal wood tracts in North Coimbatore. Insects and fungi also continued to attack the Casuarina plantations, but the remedial measures adopted were attended with beneficial results. The heavy rains in May resulted in less damage than usual being done by defoliating caterpillars in teak plantations. Fungi, insects and floods are reported to have done some damage locally.

Bombay.—Damage from frost was slight but wind-falls were comparatively numerous. Wild animals, especially pig, bison and elephants are reported to have done considerable damage, but elephants are also said to have facilitated regeneration by breaking down bamboos and so reducing overhead cover. Damage by insects was not extensive, but operations were carried out on a considerable scale for the eradication of *Loranthus* and *Lantana*

which cause much injury. There was a heavy mortality amongst Sandal trees from some unknown cause which is possibly the 'spike' disease.

4. Sylviculture.

(*a*) *Natural reproduction.*

22. Owing to early rains and favourable climatic conditions, natural regeneration was better than usual in most provinces. The provincial reports show that as the result of continued experiments fair progress is being made in ascertaining the conditions most favourable for the production of seedlings, and the measures required to bring them to maturity and increase the proportion of the more valuable species. Much still remains to be done, however, and the practical application of the knowledge acquired is frequently a matter of much difficulty owing to scarcity of labour or to the staff being inadequate or incompetent to properly supervise the necessary operations. Brief details for each province are given in the following abstracts from provincial reports :—

Bengal.—The crop of Sal seed was generally good and, the season being particularly favourable, an unusually large percentage of seedlings is reported to have survived. These remarks apply only to forests closed to grazing and successfully protected from fire. The benefits to Sal regeneration of closure, coupled with successful fire protection, are well exemplified in the Singhbhum and Sambalpur forests, where the increase in the advance growth during recent years is remarkable. It is said that, from the results obtained in the damp forests of the Kurseong Terai in those areas in which artificial assistance has been repeated for three or four years, it appears to be fairly certain that excellent regeneration can be assured. Reproduction of other species is fairly successful in areas closed to grazing. Coppice reproduction is good.

United Provinces.—The year was a good one for natural reproduction ; in the hills all the important species seeded well and seedlings are numerous. In the plains Sal seeded scantily but the seed did well. Other species varied very much in different localities. Sal coppice shoots generally did well. In the Western Circle bamboos which gave very few culms in 1907 produced a record crop in 1908.

Punjab.—Apart from minor factors adversely affecting reproduction, it seems clear that, although in almost all situations indigenous trees seed or coppice freely, it is impossible to obtain natural reproduction so long as excessive grazing is allowed. Several investigations are now in progress in connection with natural reproduction and it is probable that the working plans for some forests will require alteration if the areas are to be successfully regenerated.

Burma.—The experiments in connection with the natural regeneration of teak in fire-protected areas were continued, but there is at present nothing to add to the remarks made last year. It will probably be some years before any definite conclusion as to the best method to adopt to ensure reproduction can be arrived at. Reproduction of species other than teak is generally reported to be good, and fire-protection has an excellent effect on that of pyin-kado (*Xylia dolabriformis.*)

Eastern Bengal and Assam.—Sal is reported to have seeded well in all Divisions where this species occurs and its natural reproduction was also generally good. Experiments to ascertain the effect of burning the undergrowth on the natural regeneration of Sal were carried out, but no definite conclusions are yet possible. The natural regeneration of *Mesua ferrea* is good where conditions are favourable, and a marked improvement was observed as the result of improvement fellings and weedings. Reproduction of other species appears to have been generally good except in a few localities.

The Central Provinces.—On the whole the year was a favourable one for natural reproduction, although high winds and heavy rain early in the season did considerable damage to the seed crop of several species, including Sal. Coppice reproduction was universally good and frost proved less harmful than usual.

Coorg.—Owing to early and good rains the reproduction of the most important species was better than in the previous year. Teak was an exception.

North-West Frontier Province.—The seed year was not a good one for either deodar, blue-pine or chil, but seedlings of broad-leafed species were more abundant than usual. Silver fir seedlings are generally plentiful but few appear to survive. Coppice reproduction is satisfactory except so far as oak is concerned.

Ajmer.—The year was a good one for natural reproduction.

Baluchistan.—The season appears to have been an unfavourable one. In some localities poor reproduction is attributed to excessive and untimely rainfall; in others to excessive heat and a shortage of rain. Coppice reproduction continues to be satisfactory.

Andamans.—Padouk seeded abundantly during the year under review, but the report mentions the reproduction of no other species and that of padouk only with reference to a few small areas.

Madras.—Speaking generally the year was favourable for the reproduction of all species whether from seed or coppice, and exceptionally so in the Central and Southern Circles owing to the unusual hot weather rains. Where reproduction was poor, its failure is ascribed to scanty rainfall or excessive grazing. An interesting fact is that teak has established itself over 50 square miles in the East Kurnool Division where ten years ago there was practically none. This appears to be due to the felling of trees of other species having given the teak room to develop.

Bombay.—Conditions were generally favourable and results were good in areas which have been successfully protected from fire for two or three years. In Khandesh and Nasik *Anjan* seedlings were particularly numerous. In Sind natural reproduction was stimulated by a high inundation and an unusually heavy rainfall, but in some cases it suffered from an excess of moisture. The seeding of teak failed as a rule throughout the Northern Circle but reproduction is reported to be good.

(*b*) *Artificial Reproduction.*

[*Vide* Appendix XVI.]

23. The areas of regular and taungya plantations at the close of the year were 58,780 acres and 84,123 acres respectively compared with 61,245 acres and 83,171 acres respectively at the close of 1907-08. As regards regular plantations, 4,625 acres were added during the year, including 2,193 acres in Madras 1,387 acres in Bombay and 528 acres in the United Provinces; 3,594 acres were excluded, including 2,666 acres in Bombay, chiefly on account of failure, 507 acres—the Changa Manga plantations—in the Punjab, which have been transferred to forest and are apparently no longer to be regarded as plantations; in Bombay also 3,151 acres shown in 1907-08 as regular plantations have been transferred to cultural operations by reducing the opening balance of 1908-09. The principal changes in connection with taungya plantations were the addition of 707 acres and the exclusion of 301 acres in Burma, and the addition of 1,613 acres and the exclusion of 1,702 acres in the Central Provinces. The latter exclusion is not explained but it is presumed that the areas are considered as fully stocked and are in future to be regarded as forest and not as plantations.

The total expenditure on plantations amounted to R2,35,803 compared with R2,36,966 in the previous year. In these amounts are included R39,822 and R41,237 respectively on account of the Mergui Rubber plantation in Burma.

24. Cultural operations were carried out in most provinces, but varying methods of classifying the different works and, in some cases, incomplete information render it impossible to give accurate figures. The following statement has been prepared from the Circle Form (No. 61) and gives the areas newly operated on during the year and the total expenditure.

	Area worked over. Acres.	Total expenditure. R
Bengal	988	5,924
United Provinces	1,393	6,698
Punjab	739	3,658
Burma	17,252	8,945
Eastern Bengal and Assam	15	241
Central Provinces	2,857	1,245
Coorg	...	...
North-West Frontier Province	232	202
Ajmer	209	..
Baluchistan	1	11
Andamans	...	...
Total Bengal	23,686	26,924
Madras	7,768	25,220
Bombay	50,690	10,215
GRAND TOTAL	82,144	62,359

(*c*) *Operations for the improvement of the growing stock.*

25. Too much importance cannot be attached to operations of this nature as on them depends in a great measure the future state of most Indian Forests. This is fully realized but the extent to which such works can be carried out and their usefulness are limited by the number and capabilities of the staff, the supply and quality of labour and the funds available. So far as can be judged, much more attention is now being paid to these operations than was the case a few years ago and this is no doubt chiefly due to the re-organizations of the controlling and subordinate establishments which have been given effect to in most provinces. At the same time some of the Circle Reports, while stating generally the operations carried out, give little or no information regarding the areas worked over and the cost incurred. It is thus impossible to ascertain what progress is being made. This is particularly the case in Madras and Bombay, but in the reports of other provinces details of area or cost or both are frequently lacking. The following statement has been compiled from such information as is available in the Circle Reports :—

Province.	Climber cutting only.		Improvement fellings, Cleanings, etc.	
	Area worked over.	Cost.	Area worked over.	Cost.
	Acres	R	Acres	R
Bengal	23,655	3,021	6,935	2,855
United Provinces	75,104	4,815	49,278	12,059
Punjab	946	...	25,537	5,876*
Burma	202,604	34,546	78,195	36,028
Eastern Bengal and Assam	87,530	17,718	9,906	4,929
Central Provinces	141,807	4,277	74,138	30,862
Coorg	...	...	1,340	251
North-West Frontier Province	...	...	38	61
Ajmer	...	...	...	...
Baluchistan	...	...	...	...
Andamans	...	...	...	...
TOTAL	531,646	64,377	245,367	92,921

* Includes cost of climber cutting.

(*d*) *Experiments.*

26. Experiments carried out by the Forest Department have shown that Para rubber (*Hevea braziliensis*) can be successfully grown in Southern Burma and (*Ficus elastica*) in Assam, but little success has attended the efforts to grow these and other rubber producing species in other parts of India. The most important experiments in the various provinces are summarized in the following abstracts from the provincial reports :—

Bengal.—The attempt to provide grazing on a specially prepared and turfed area for the cattle required for the milk supply of Darjeeling is proving very expensive, and seems unlikely to be successful. It is being continued.

United Provinces.—Of the four exotics tried in the Naini Tal Division, *Bucklandia populnea* and *Eucalyptus Globulus* failed altogether, whilst *Acacia decurrens* and *Cryptomeria japonica* proved a success, especially the former. Other experiments with exotics were not very successful except that the seed of *Catalpa speciosa* germinated well. Although the skew method of tapping *chir* pine yielded 20 per cent. more resin than the vertical method, all the trees so treated have subsequently died and the system has consequently been condemned The experimental cultivation of lac was continued, but the results obtained are still the reverse of encouraging. Investigations have shown that long grass in blank forest areas affords protection to *Sal* seedlings from frost. All the seedlings on areas cleared of grass died whereas in the areas not so cleared a fair number survived. Experiments to test the feasibility of floating billets of spruce and silver fir from the Jaunsar forests are as yet inconclusive. The same remark applies to the attempt to keep hay in stacks for a year or more, the re-stocking of chanders in the Cis-Sarda forests and other re-stocking experiments and the protection of Sal shoots from frost.

The Punjab.—The experiments with *Catalpa speciosa* indicate that this species is unsuitable. *Pinus pinaster* continues to do well in Bashahr but it appears to have no advantages over the indigenous species so far as the re-afforestation of denuded slopes is concerned. Experiments with *Salix Babylonica* in Multan are promising. Extensive experiments with numerous species of Eucalyptus are being continued with a view to afforesting the hills in the neighbourhood of Simla and those bordering on the Kalka-Simla railway. In the Simla Municipal forests an experimental orchard has been started and other plots have been selected with a view to ascertaining whether it is feasible to successfully cultivate fruit for commercial purposes. Many sylvicultural experiments are in progress but some years must elapse before any definite deduction can be drawn from the results.

Burma.—Experiments with Andamans Padouk (*Pterocarpus dalbergioides*) and *Catalpa speciosa* were continued with indifferent results. Camphor (*Cinnamomum Camphora*) is reported to have succeeded wonderfully well at Maymyo but less well at Taunggyi. Numerous sylvicultural experiments are in progress, but no definite results have yet been obtained. The proposed experimental cultivation of lac with seed lac from India could not be carried out as the seed lac miscarried.

Eastern Bengal and Assam.—Experiments in the propagation and cultivations of lac were continued but, though promising in some localities, they are as yet inconclusive. *Catalpa speciosa* proved disappointing as most of the seeds failed to germinate.

Central Provinces.—Many sylvicultural experiments are being carried out but it is too early to draw definite conclusions from them. The few exotics experimented with do not appear to have given satisfactory results.

North-West Frontier Province.—Attempts to cultivate *Podophyllum emodi* are not very promising. A number of *Eucalyptus Globulus* planted at Bagnotar were all killed by frost but *Robinia* seems likely to be more successful.

Madras.—The experiments with a large number of exotics have so far yielded no results of value and nothing definite has yet been ascertained as to the relative effects of burning, grazing and cutting on the quality of the grass appearing subsequently.

Bombay.—The experiments with various rubber producing species—*Para, Ceara, Castilloa* and *Ficus elastica*—were continued on a fairly extensive scale. Although nothing definite can yet be said regarding the possibility of making the growing of rubber in Bombay a commercial success, a generally unfavourable opinion appears to prevail amongst the officers of the Department. Few experiments with indigenous or exotic trees and plants are reported and all are so far inconclusive.

5.—Exploitation.

(*a*) *System of Management.*

27. In the provinces outside the Bombay and Madras Presidencies the total area under regular Working-Plans came to 34,652 square miles at the close of the year under review. This includes 334 square miles in the United Provinces and 38 square miles in Burma, Working-Plans for which are under revision. The remark made last year in regard to 317 square miles of forests in the Andamans applies to this year also.

The various sylvicultural systems in force over this area are summarised in the following table :—

Sylvicultural system.	Area in square miles.	Percentage of total area under each Sylvicultural system.
Method of Clear Fellings by compartments	5	·01
Uniform method	184	·53
Group-method	1	·00
Selection method	11,270	32·52
Simple coppice	125	·36
Coppice with standards	2,226	6·43
Method of Improvement fellings	7,295½	21·06
	(*a*) 13,545½	39·09
Total . .	34,652	100·00

(*a*) Included in forests for which Working-Plans have been prepared but not subjected to any definite system of working.

Attention continues to be given to the question of introducing the uniform method, or modifications of it, experimentally in different classes of forests, and Working-Plans with this object in view are under preparation, or are contemplated, in connection with some of the *Sal* forests of the United Provinces and Bengal, some of the teak forests of Burma, the Pine (*Pinus Khasya*) forests of Assam, and the Deodar Forests of the Punjab.

(*b*) *Agency of Exploitation.*

[*Vide* Appendix XVIII.]

(*i*) *Departmental Agency and* (*ii*) *Purchasers.*

28. The substitution of private enterprise for departmental working resulted in a total reduction of more than one million cubic feet in the quantity of timber removed by Government Agency, which amounted to 6,758,266 cubic feet in the year under review. The principal decreases were in the Punjab, Burma and Madras, while considerable increases occurred in Eastern Bengal and Assam and the Central Provinces. The quantity removed by purchasers increased by somewhat less than one-third of a million cubic feet to a total of 53,274,103 cubic feet, but the provincial figures show considerable fluctuations. A decrease of over 3⅓ million cubic feet in the Punjab (according to

Form 62) is not explained, while an increase of over 3 million cubic feet in Burma is chiefly due to a favourable floating season having facilitated the extraction of teak by purchase contractors.

As regards fuel, the quantity extracted by Government Agency amounted to 20,104,293 cubic feet or nearly $1\frac{1}{2}$ million cubic feet less than in 1907-08, Madras alone accounting for a decrease of more than $1\frac{1}{3}$ million. Purchasers extracted 94,238,730 cubic feet or nearly $2\frac{1}{4}$ million cubic feet more than in the previous year. Here again the provincial figures vary considerably. Bombay shows an increase of over 3 million cubic feet extracted by purchasers, and Bengal and Eastern Bengal and Assam increases of more than one million cubic feet each. The chief decreases were considerably over a million cubic feet each in the United Provinces and the Central Provinces and more than three-quarters of a million cubic feet in the Punjab.

The total outturn of bamboos amounted to 7,082,790 extracted departmentally and 150,254,324 extracted by purchasers, or nearly 11 millions less than in the previous year. The difference is made up of $3\frac{2}{5}$ millions by Government Agency and more than $7\frac{1}{2}$ millions by purchasers. The principal change under Government Agency was a decrease of nearly $3\frac{1}{4}$ millions in Madras, while in the quantities extracted by purchasers increases occurred in Bengal ($1\frac{1}{7}$ millions) and Burma ($4\frac{4}{5}$ millions) and decreases in the United Provinces ($4\frac{1}{5}$ millions) and Madras ($9\frac{2}{5}$ millions).

The value of the minor produce extracted departmentally and by purchasers was R2,95,435 and R45,90,483 respectively or R37,136 and R63,303 respectively less than in the previous year. Eastern Bengal and Assam (R16,264), the Central Provinces (R12,588) and Madras (R16,777) are chiefly responsible for the decrease under the former head and the Central Provinces (R91,188), Bombay (R80,502) and Madras (R17,835) for that under the latter, under which also increases occurred in Bengal (R17,875), the United Provinces (R56,977), the Punjab (R16,619), Burma (R23,285) and Eastern Bengal and Assam (R19,253).

(iii) Rights and privileges.

29. The following statement compares the estimated quantities of Forest produce removed from the forests by right and privilege-holders during the last two years* :—

	1907-08.	1908-09.	Difference.
Timber (cubic feet) . .	2,464,266	2,563,188	+98,922
Fuel „ . .	48,400,846	47,125,156	−1,275,690
Bamboos (number) . .	22,160,618	20,383,078	−1,777,540
Minor produce, including grass and grazing (value).	R13,84,749	R15,73,766	+R1,89,017

(iv) Free grants.

30. The quantities of forest produce granted free during the year under review and that preceding it were as follows :—

	1907-08.	1908-09.	Difference.
Timber (cubic feet) . . .	2,112,544	1,814,338	−298,206
Fuel „ . . .	7,653,314	6,157,792	−1,495,522
Bamboos (number) . . .	2,987,151	2,548,829	−438,322
Minor produce, including grass and grazing (value).	R7,68,135	R4,79,059	−R2,89,076

*It is noticed that in some provinces, particularly Bombay, the produce removed by right-holders is not invariably shown in Forms 62 and 63 accompanying the Circle reports.

The decrease under all heads is accounted for by the fact that 1907-08 was a year of general scarcity and large free grants were made to relieve the prevailing distress.

(c) *Outturn of forest produce.*

[*Vide* Appendix XVII].

31. The following statement shows the total outturn from all classes of forest as compared with that of the previous year :—

Presidency.	Year.	Timber and Fuel.	Bamboos.	Minor produce.
		Cubic feet.	No.	₹
Bengal . . .	1908-09	165,610,113	135,208,376	39,41,889
	1907-08	169,524,073	133,035,771	42,18,119
Madras . . .	1908-09	24,415,574	32,001,730	15,79,521
	1907-08	26,354,690	44,657,836	16,20,999
Bombay . . .	1908-09	42,010,178	13,065,915	14,17,333
	1907-08	39,103,360	15,733,416	13,00,123
TOTAL . .	1908-09	232,035,865	180,276,021	69,38,743
	1907-08	234,982,123	193,427,023	71,39,241

As it is not possible to ascertain from the Madras and Bombay reports the quantity of forest produce derived from each class of forest, the following remarks apply to the Bengal Presidency only.

The total outturn of timber and fuel from reserves was nearly 5 million cubic feet less than in the previous year. The principal decreases were in the United Provinces, the Punjab and the Central Provinces, while Bengal, Burma and Eastern Bengal and Assam show considerable increases. There was little change in the outturn from protected forests but that from unclassed forests increased by $1\frac{1}{4}$ million cubic feet, of which Eastern Bengal and Assam accounts for 1 million.

The total outturn of bamboos increased by more than 2 millions, made up of an increase of over 5 millions from unclassed forests and a decrease of over 3 millions from reserves. In the United Provinces the decrease from reserves amounted to over 4 millions. A considerable reduction also occurred in the Central Provinces but the increased outturn in Bengal and Burma amounted to nearly 2 millions. The outturn from protected forests was practically the same as in the previous year, while of the increase from unclassed forests Burma accounts for more than $4\frac{1}{2}$ millions and Eastern Bengal and Assam for over half a million.

The most important factor in the total decrease under minor produce was a reduction of ₹3,64,059 from reserves in the Central Provinces, which is mainly due to a more normal season having necessitated fewer free grants but also to a smaller demand. The outturn from reserves shows a total decrease of ₹3,34,922 and that from protected forests a decrease of ₹23,458, The outturn from unclassed forests on the other hand increased by ₹82,150, to which Burma and Eastern Bengal and Assam were the chief contributors.

(6) Exports of Forest Produce.

[*Vide* Appendix XXIV.]

32. The total value at ports of shipment of forest products exported amounted to 403 lakhs of rupees as compared with 563½ lakhs in 1907-08 and 483 lakhs the average of the previous five years. The great decline is due to a considerable fall in the market value of nearly all descriptions of produce, especially lac.

Exports of caoutchouc decreased by 51 tons to 98 tons. The market value declined by R627 per ton with the result that the total value fell from R5,78,397 to R3,19,039.

The total quantity of the various descriptions of lac exported increased by 903 tons to a total of 19,041 tons, but a great fall in value, which in the case of shellac amounted to R861 per ton, resulted in a reduction of R1,28,83,627 in the total value of the exports, this being R2,79,46,962.

The average market value of cutch and gambier declined by R21 to R295 per ton and the total quantity and value of the exports decreased by 1,446 tons and R5,23,885 respectively.

A further decrease in the exports of teak occurred, the quantity amounting to 27,220 tons as compared with 39,539 tons in the previous year. This, combined with a decline of R7 per ton in the market value, resulted in the total value of this timber exported decreasing by R21,14,813 to R10,19,857.

CHAPTER III.

Financial Results.

[*Vide* Appendices XIX to XXIII.]

33. The Gross Revenue, Expenditure, Surplus and the percentage of expenditure to Gross Revenue for the last 36 financial years were as follows:—

Quinquennial periods.	Gross Revenue (Average).	Expenditure (Average).	Surplus (Average).	Proportion of Expenditure to Gross Revenue.
	₹	₹	₹	Per cent.
1873-74 to 1877-78 . .	67,23,191	44,76,303	22,46,888	66
1878-79 to 1882-83 . .	79,15,956	52,09,538	27,06,418	66
1883-84 to 1887-88 . .	1,10,59,434	71,42,382	39,17,052	64
1888-89 to 1892-93 . .	1,51,86,115	82,61,176	69,24,939	55
1893-94 to 1897-98 . .	1,74,50,655	96,57,496	77,93,159	55
1898-99 to 1902-03 . .	1,90,22,776	1,08,42,872	81,79,904	57
1903-04 to 1907-08 . .	2,50,55,151	1,35,94,021	1,14,61,130	54
Year.				
1908-1909	2,54,56,799	1,47,26,034	1,07,30,765	58

34. Compared with the previous year the gross revenue realized was ₹4,06,180 less, while the expenditure was ₹2,13,101 greater. The surplus was therefore less by ₹6,19,281, and as a fall in the surplus amounting to ₹10,77,640 was recorded in 1907-08, the financial results at first sight appear to be somewhat disappointing. The effects of the almost universal scarcity of 1907-08 were still, however, apparent during the year under review and adversely affected the demand for forest produce in several provinces. Another cause contributing to a decrease in the gross revenue is the policy of encouraging the exploitation of the forests by private agency, which must also tend towards a reduction in the expenditure on exploitation and for a time in the surplus. Owing mainly to this policy the expenditure on conservancy and works was ₹1,79,707 less than in 1907-08. That on establishments and miscellaneous charges was, however, ₹3,92,808 greater. The increase under the latter head was not unexpected and is due in a great measure to the reorganizations which have been effected during the last few years in every branch of the service. The full effect of these reorganizations, both as regards the increased expenditure involved and the improvement in the working of the forests, will not be apparent for several years, but it may be confidently anticipated that they will render more systematic and intense working possible and that a considerably increased revenue will result at no distant date.

35. As regards the gross receipts in the various provinces, only in Burma (₹5,28,043) and Eastern Bengal and Assam (₹15,921) was there any increase, and in Burma this is mainly attributed to a favourable floating season which enabled purchase contractors to extract larger quantities of teak. Decreases

exceeding one lakh occurred in the United Provinces (R2,34,339), the Punjab (R1,68,657), the Central Provinces (R2,11,966) and the North-West Frontier Province (R1,15,708).

36. The most marked changes in expenditure were increases in Burma (R1,65,715), Eastern Bengal and Assam (R90,976), the Central Provinces (R1,69,900), Madras (R1,36,404) and Bombay (R88,446), and decreases in Bengal (R1,29,413) and the Punjab (R3,25,069).

37. Increases in the net Revenue occurred only in Bengal (R1,16,608), the Punjab (R1,56, 412) and Burma (R3,62,328). Decreases are shown by the United Provinces (R2,62,762), Eastern Bengal and Assam (R75,055), the Central Provinces (R3,81,866), Coorg (R45,202), the North-West Frontier Province (R1,08,721), Ajmer (R3,977), the Andamans (R41,478), Madras (R1,39,315) and Bombay (R1,47,267). In Baluchistan the deficit was R6,852 greater than in the preceding year.

38. The estimated value of forest produce granted free or at reduced rates during the forest year was R45,97,450 as compared with R49,53,319, in 1907-08. The most important changes were a reduction of R5,34,585 on account of grass and grazing and of R1,36,441 on account of bamboos, for which the improved conditions of the year account, and an increase of R3,26,799 in the estimated value of other minor produce.

39. The following statement shows the financial results of the working of the forests after deducting capital expenditure not yielding an immediate return :—

	R	R
Gross Revenue		2,54,56,799
Value of produce granted free or at reduced rates		45,97,450
Total value of yield		3,00,54,249
Gross Expenditure	1,47,26,034	
Deduct expenditure not yielding an immediate return :—		
(*a*) Roads and Buildings	14,19,511	
(*b*) Cultural operations	6,62,091	
(*c*) Working-Plans	72,711	
(*d*) Settlements	67,544	
(*e*) Surveys	1,15,964	
(*f*) Demarcation	1,54,025	
TOTAL	24,91,846	
Balance of direct revenue producing expenditure		1,22,84,188
Surplus over expenditure directly chargeable to Revenue		1,78,20,061

CHAPTER IV.

GENERAL.

1.—Administration.

40. Mr. S. Eardley-Wilmot, C.I.E., continued to hold the post of Inspector General of Forests up to the 9th November 1908, when he retired from the Indian Forest Service. He was succeeded by Mr. F. Beadon Bryant, Chief Conservator of Forests, Burma.

With a view to obviating the difficulties experienced under existing arrangements in filling vacancies occurring on the India List, the 13 Imperial Service posts on that list together with a leave and training reserve of three officers were distributed among the several provincial cadres in the proportion of their respective sanctioned strength. The distribution resulted in the addition of five posts to the Burma cadre, two each to the Madras, Bombay, United Provinces and Central Provinces cadres and one each to the Bengal, Eastern Bengal and Assam and Punjab cadres.

The reorganisation schemes sanctioned by the Secretary of State during the year involved the addition of the following Imperial and Provincial Service appointments:—

	Imperial.	Provincial.
Bombay	2	3
Bengal	...	1
Eastern Bengal and Assam	5	10
Central Provinces	2	11

These appointments include an additional Conservator for the charge of a newly created second circle in Eastern Bengal and Assam and the respective shares of the India List appointments allotted to the several provincial cadres. Schemes for the reorganisation of the Controlling Staff of the Forest Department in the Madras Presidency and in the Punjab were under consideration.

Three officers of the Imperial Service retired, one resigned and two died during the year.

Officers on Foreign Service.

41. The following statement shows the officers on foreign service in India, in British Colonies and serving under other Governments:—

In India.

Imperial Service.

1. Mr. W. H. Lovegrove (United Provinces), Kashmir from October 1907.
2. „ R. M. Williamson (Central Provinces), Rewah State from October 1907.
3. „ C. G. Trevor (Punjab), Chamba State from April 1908.

Provincial Service.

1. Lala Daulat Ram (Punjab), Kashmir.
2. Rai Bahadur M. Muttannah (Madras), Mysore.
3. Rao Sahib M. Rama Rao (Madras), Travancore.
4. Mr. G. W. Thompson (Madras), Jeypore.
5. Pandit Thakur Das (Punjab), Jubal State.
6. Mr. W. G. Gilmore (Central Provinces). Indore State,
7. „ B. Inamati Shama Rao (Central Provinces), Mysore.
8. Bhagawandas Harkisandas Dalal (Bombay), Rajpipla.
9. Mr. A. P. Mudaliar (Bengal), Mysore.
10. Rai Bahadur Keshva Nand (United Provinces), Kashmir.
11. Lala Har Sarup (United Provinces), Gwalior.
12. F. J. Langhorne (Central Provinces), Court of Wards.

Under other Governments.

Mr. W. F. Lloyd (Bengal), Siam.

Mr. S. A. Wood (Burma), Soudan.
(Services transferred permanently to the Soudan Government.)

Although the financial results of the Burma Kheddah operations have so far proved disastrous, it was decided during the year to continue operations on a reduced scale for a further period of three years. Enquiries into reports that extensive frauds had been committed led to the suspension early in the year of the Officiating Superintendent of the Kheddah Department and one of his Assistants. Both officers were subsequently criminally prosecuted, but the case was still under trial at the end of the year. Meanwhile the Deputy Conservator of Forests, Katha Division, was temporarily appointed Superintendent in addition to his own duties and a Provincial Service Forest officer was appointed Assistant Superintendent. As a consequence of the disorganisation resulting from the change of management and the necessary enquiries in connection with the alleged frauds, no hunting operations were undertaken during the year. In future the Annual Report of the Kheddah Department is to be attached to the Forest Administration Reports.

An improved system of compiling the Annual Forest Administration Report has been introduced by the Bombay Government. Instead of the reports for the several circles being printed separately, one after another, the remarks of each Conservator bearing on the same subject are brought together in one place. This greatly facilitates the collection of information on any matter for the whole province, and the system is one that might be adopted with advantage in all provinces in which there are two or more circles.

2.—Recruitment, Technical Education and Research.

42. Ten officers who had completed the Forestry course at Oxford and who had obtained the Diploma of Forestry of that University, were appointed Assistant Conservators of Forests and arrived in India about the end of 1908. Three of these were posted to Madras, two to Burma and one each to the United Provinces, the Punjab, Bombay, Bengal and Eastern Bengal and Assam. Sixteen candidates were selected in England by the Secretary of State for training at Oxford for the Indian Forest Service.

43. The posts of President of the Imperial Forest Research Institute and of Principal of the Imperial Forest College at Dehra Dun, were held by Mr. L. Mercer until the 12th April 1909, when he proceeded on leave and was relieved by Mr. A. M. F. Caccia, the Superintendent of Forest Working-Plans and Imperial Sylviculturist. The latter post was then filled by Mr. R. S. Troup, the Forest Economist, Mr. R. S. Pearson, Deputy Conservator of Forests on the Bombay list being in turn appointed Economist in Mr. Troup's place. Messrs. E. P. Stebbing, R. S. Hole and Puran Singh, continued to hold the posts of Forest Zoologist, Botanist and Chemist, respectively.

44. The Provincial Service class of 1908-09 consisted of six students—five in the service of the Government and one from the Mysore State. All six obtained pass certificates.

45. The special Entrance Examination having been abolished, out of 105 applications received from the various Local Governments and Conservators of Forests, 56 candidates were selected and joined the College in April 1909. This number included seven students deputed by Native and Foreign States. On the results of the Final Examination held in March 1909, for the class

of senior students, Higher Standard certificates were granted to 32 candidates and Lower Standard certificates to eight. Only one student failed to obtain a certificate. Since the Imperial Forest School was founded in 1878, Higher Standard certificates have been granted to 654 students and Lower Standard certificates to 189 students.

46. *Forest Research.*—Full details of the work of the year appear in the Progress Report of the Imperial Forest Research Institute, but the following brief summary may be of general interest:—

Sylviculture and Working-Plans.—For various reasons little original research in Sylviculture was possible and the work of the year had to be restricted to the collection and compilation of information already available in existing local records. Among the subjects under investigation were (*i*) the preparation of yield tables for various species under some definite system of management, (*ii*) the selection method of treatment and the uniform method of successive regeneration fellings as applicable to Indian Forests. A comprehensive note on the selection system was published and a note on the uniform method was under preparation, (*iii*) the collection of information regarding plantation work on a large scale, (*iv*) the collection of statistical data for various species. A Forest pamphlet (No. 8, Working-Plans series No. 2) containing statistical data for *Sal* (*Shorea robusta*) was published during the year. A note regarding the methods of collecting and recording statistical data was also published with the object of ensuring that such work is carried out on uniform lines throughout India, (*v*) sylvicultural notes relating to various species, and (*vi*) the height at which bamboos should be felled and the effect of the season of felling on the durability of the culms.

Forest Botany.—The principal subjects under study during the year were (i) Teak coppice and reproduction, (*ii*) Forest grasses, with special reference to the effects of fire upon them, and (*iii*) the various species or forms of *grewia* of economic importance, with special reference to the production of a satisfactory classification and description of the same. The results of the enquiry into the first subject were sent to the Press for publication in the form of a Pamphlet. In view of the enormous and steadily increasing number of cattle for which it is necessary to provide grazing in the State Forests, the second subject is one of great importance. A certain amount of information has been collected but the subject is such a large one that its full investigation must extend over several years. The third subject has already been under study for two years and it is hoped that it will be possible to publish the full results of the investigation next year.

A manual of Botany was also published during the year.

Forest Economy.—Considerable progress was made with the many investigations initiated in former years, of which the most important was that relating to the match industry in India. A memoir on this subject by Mr. R. S. Troup and six other publications were in the press at the close of the year, while three publications were issued during the year. The most important of the latter was a memoir entitled "Indian woods and their Uses" in which the principal characteristics and uses of over 550 species are described.

Forest Chemistry.—Perhaps the most important work carried out by the Forest Chemist was an investigation regarding the manufacture of tannin extracts from Mangrove Sal bark the object being to produce marketable decolourised tannin extracts instead of the highly coloured extracts hitherto obtainable. Considerable success attended the laboratory experiments, and further experiments on a commercial scale were arranged for at the Government tanning fac-

tory at Rangoon. Considerable progress was also made with a number of other investigations of which the more important were the extraction of oil from Forest oil seeds, the manufacture of Shellac, the distillation of Ngai Camphor (or *lævio borneol*) from *Blumea balsamifera*, the distillation of turpentine oil and the clarification and decolourization of Indian colophony, the bleaching of Indian Match Woods (in conjunction with the Economist's enquiry) and the distillation and examination of Khas (*Vetiveria zizanioides*) oil. Six publications were issued during the year and four more were in the press at its close.

Forest Zoology.—The investigation into the insects damaging *Sal* and various conifers was advanced considerably during the year and some progress was made with the enquiries regarding other insect pests. Five publications were issued during the year and seven others were sent to press but not issued until after its close.

47. *General.*—Considerable additions were made to the herbarium and to the various museum collections, and acknowledgments are due to many Forest Officers and others who have contributed specimens. In his report the President of the Research Institute also acknowledges the assistance freely given by many individual Forest officers in supplying information and in carrying out experiments in connection with some of the investigations undertaken.

APPENDIX I.

[*Vide* paragraphs 2 and 3.]

Area of Reserved and Leased Forests.

Province.	Area in square miles.				Remarks.
	At commencement of year.	Added in 1908-09.	Excluded in 1908-09.	At close of 1908-09.	
Bengal	(a)4,235	...	...	(a)4,235	(a) Excludes 5 square miles of Reserved forests not under the management of the Forest Department.
United Provinces	(b)4,091	3	2	(b)4,092	(b) Includes 157 square miles of leased forests.
Punjab	(c)2,176	50	14	(c)2,212	(c) Includes 369 square miles of leased forests, but excludes 110 square miles not under the management of the Forest Department.
Burma	22,858	806	83	23,581	
Eastern Bengal and Assam	(d)6,550	98	337	(d)6,311	(d) Excludes 6 square miles of Reserved forests not under the management of the Forest Department.
Central Provinces including Berar.	(e)21,999	(f)30	(f)111	(e)21,918	(e) Includes 34 square miles of village forests in Berar.
Coorg	520	...	...	(g)520	(f) These changes involve a net reduction of 81 square miles. The difference between this figure and 76 square miles stated in paragraph 1 of the Chief Commissioner's Resolution has not been explained.
North-West Frontier	(h)236	...	...	(h)236	
Ajmer	142	...	...	142	(g) Only 179 acres were added during the year.
Baluchistan	280	2	...	282	(h) Excludes 14 square miles of Military and Civil Reserved forests.
Andamans	159	2	...	161	(i) Includes 217 square miles of leased forests and excludes 1,499 square miles under the control of the Revenue Department.
Total, Bengal	63,246	991	547	63,690	
„ Madras	18,549	150	5	18,694	(j) Includes 10 square miles added in rectification of a previous error.
„ Bombay	(i)12,264	(j)34	(k)121	(l)12,177	(k) Includes 93 square miles transferred to the control of the Revenue Department.
Grand Total 1908-09	94,059	1,175	673	94,561	(l) Includes 217 square miles of leased forests and excludes 1,576 square miles under the control of the Revenue Department.
„ „ 1907-08	94,029	2,640	2,610	94,059	

APPENDIX II.

[*Vide* paragraphs 1 to 3.]

Area of all forest lands.

Province.		Forest area in square miles.				Percentage of forests to whole area of Province.	Remarks.
Name.	Area in square miles.	Reserved.	Protected.	Unclassed State.	Total.		
Bengal . . .	116,115	4,235	(a) 2,781	...	7,016	6·0	(a) 16 square miles added and 28 square miles excluded during the year; excludes 599 square miles not under the control of the Forest Department.
United Provinces .	107,637	4,092	(b)30	(c)55	4,177	3·8	(b) Excludes 9,069 square miles of district Protected forests not under the control of the Forest Department.
Punjab . . .	97,218	2,212	(d) 5,222	(e) 1,580	9,014	9·3	(c) 13 square miles added during the year.
Burma . . .	176,569	23,581	...	(f) 110,868	134,449	76·1	(d) 19 square miles excluded during the year.
Eastern Bengal and Assam.	93,783	6,311	(g)	(h) 22,703	29,014	30·9	(e) 1 square mile added and 143 square miles excluded during the year. Excludes 111 square miles under the control of the Civil Department.
Central Provinces including Berar.	100,331	21,918	...	3	21,921	21·8	(f) 4,065 square miles added and 795 square miles excluded during the year.
Coorg . . .	1,582	520	...	...	520	32·9	(g) 4 square miles not under the management of the Forest Department.
North-West Frontier	13,184	236	(i)	...	236	1·8	(h) Revised figures. 542 square miles added and 530 square miles excluded during the year.
Ajmer . . .	2,646	142	(j)	6	148	5·6	(i) 121 square miles of Civil Protected Forests are not shown.
Baluchistan . .	9,403	282	...	496	778	8·3	(j) There are only 115 acres of Protected forests in Ajmer.
Andamans . .	3,143	161	...	1,791	1,952	62·1	(k) Reserved lands including 158 square miles of leased forests.
Total, Bengal . .	721,611	63,690	8,033	137,502	209,225	28·9	(l) Includes 439 square miles of leased forests and excludes 548 square miles under control of the Revenue Department.
„ Madras . .	141,807	18,694	...	(k)876	19,570	13·8	
„ Bombay . .	122,726	12,177	(l)802	...	12,979	10·6	
Grand Total, 1908-09	986,144	94,561	8,835	138,374	241,774	24·5	
„ „ 1907-08	985,938	94,059	8,853	134,897	237,809	24·2	

APPENDIX III.

[*Vide* paragraph 4.]

Progress in Forest Settlements.

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.						Areas undergoing settlement.								
				Area.			Expenditure incurred.			At commencement of the year.			Taken in hand during the year.			Expenditure incurred during the year.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	R	R	R	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	R	R	R
Bengal	4,240	...	4,240	...	...	...	...	...	...	15	...	15	12	...	12	85	...	85
United Provinces	3,934	30	3,964	1	...	1	...	...	...	13	...	13	12	...	12	1,200	...	1,200
Punjab	(a) 1,921	5,241	7,162	47	...	47	...	...	...	15	205	220	...	...	...	...	...	...
Burma	(a) 22,809	...	22,809	892	...	892	5,735	...	5,735	4,394	...	4,394	777	...	777	26,114	...	26,114
Eastern Bengal and Assam.	6,556	...	6,556	98	...	98	...	...	...	89	...	89	15	...	15	...	...	...
Central Provinces including Berar.	18,261	...	18,261	7	...	7	...	...	...	16	...	16	3	...	3	950	...	950
Coorg	520	...	520	...	...	...	(b) 643	...	(b) 643	...	...	...	...	...	...	...	...	...
North-West Frontier	(c) 236	(a) 121	357	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baluchistan	280	...	280	2	...	2	...	...	...	1	...	1	...	...	...	...	...	...
Andamans	159	...	159	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Total Bengal	58,916	5,392	64,308	1,049	...	1,049	6,378	...	6,378	4,543	205	4,748	819	...	819	28,349	...	28,349
„ Madras	(a) 18,546	...	18,546	149	...	149	979	...	979	514	...	514	4	...	4	2,536	...	2,536
„ Bombay	13,453	897	14,350	19	13	32	1,226	...	1,226	266	...	266	1	...	1	3,441	...	3,441
Grand Total, 1908-09	90,915	6,289	97,204	1,217	13	1,230	8,583	...	8,583	5,323	205	5,528	824	...	824	34,326	...	34,326
„ „ 1907-08	89,197	6,310	95,507	1,798	...	1,798	7,490	...	7,490	3,122	205	3,327	3,575	...	3,575	34,188	...	34,188

(a) Corrected figures.
(b) Represents mainly the pay and travelling allowance of a surveyor engaged during the previous settlement, who was finishing off some work connected therewith.
(c) Excludes 14 square miles of Military Reserved forests.

APPENDIX IV.

[*Vide* paragraph 5.]

Demarcation and Maintenance of Boundaries.

Province.	Circle.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
									On new work.	On repairs.
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	₹	₹
Bengal	.....	213	3,310	158	(a)3,701	...	1,028	4,729	562	1,895
United Provinces	Eastern Circle	32	1,022	1,496	2,550	9	611	3,170	...	8,572
	Western „	...	378	1,760	2,138	1	784	2,923	594	3,138
	Total	32	1,400	3,256	4,688	10	1,395	6,093	594	11,710
Punjab	.....	...	1,821	8,163	9,984	20	1,111	11,115	...	4,991
Burma	Pegu Circle	82	725	2,820	3,627	7	1,257	4,891	714	8,504
	Tenasserim Circle	260	1,162	2,628	4,050	12	634	4,696	3,387	8,449
	Northern „	190	887	2,854	3,931	69	551	4,551	1,656	7,133
	Southern „	505	329	3,836	4,670	176	642	5,488	8,452	4,021
	Total	1,037	3,103	12,138	16,278	264	3,084	19,626	14,209	28,107
Eastern Bengal and Assam.	.....	60	1,908	178	2,146	20	2,682	4,848	3,672	10,753
Central Provinces	Northern Circle	31	8,643	3,077	11,751	...	1,124	12,875	803	7,909
	Southern „	7	8,761	...	8,768	49	978	9,795	29	4,339
	Berar „	...	7,344	6,315	13,659	4	663	14,326	3,119	4,819
	Total	38	24,748	9,392	34,178	53	2,765	36,996	3,951	17,067
Coorg	.....	34	...	273	307	173	56	536	818	101
North-West Frontier	.....	...	51	726	777	...	139	916	...	629
Ajmer	.....	...	4	258	262	...	158	420	33	61
Baluchistan	.....	4	214	207	425	...	77	502	...	...
Andamans	.....	19	7	41	67	14	116	197	172	57
Total Bengal	.....	1,437	36,566	34,790	72,813	554	12,611	85,978	24,011	75,371
Madras	Northern Circle	110	3,315	5,431	8,856	135	505	9,496	6,459	3,029
	Central „	89	12,374	3,864	16,327	62	271	16,660	1,037	4,573
	Southern „	121	2,290	7,737	10,148	374	949	11,471	8,454	10,453
	Total	320	17,979	17,032	35,331	571	1,725	37,627	15,950	18,055
Bombay	Northern Circle	164	861	4,612	5,637	624	469	6,730	528	1,381
	Central „	602	3,271	10,422	14,295	4,041	1,543	19,879	3,345	1,561
	Southern „	176	669	11,592	12,437	327	630	13,394	2,528	1,406
	Sindh „	28	1,889	146	2,063	...	598	2,661	...	...
	Total	970	6,690	26,772	34,432	4,992	3,240	42,664	6,401	4,348
Grand Total 1908-09	.....	2,727	61,235	78,594	142,576	6,117	17,576	166,269	46,362	97,774
„ „ 1907-08	.....	2,421	55,439	83,367	141,227	10,653	17,490	169,370	57,006	89,154

N. B.—Boundaries include, beside the outer perimeter, the limits of enclosures of private and other lands within the forests, but not the limits of sub-division such as blocks, compartments and coupes.

(a) Includes 20 miles demarcated by lessees of adjacent waste lands in the Sundarbans.

APPENDIX V.

[*Vide* paragraphs 6 to 8.]

Forest areas surveyed and under survey.

Province.	1″=1 Mile.		2″=1 Mile.		4″=1 Mile.		Total of detail Survey.		Expenditure including mapping and publishing charges debitable to "Forests."
	Outturn.	Cost rate.	Outturn.	Cost rate.	Outturn.	Cost rate.	1908-09.	Total up to date.	
	Sq. miles.	₹	Sq. miles.	₹	Sq. miles.	₹	Sq. miles.	Sq. miles.	₹
Bengal	...	...	...	...	...	...	...	2,307	...
United Provinces	...	...	...	...	...	...	...	4,139	1,505
Punjab	...	...	...	...	...	...	...	3,572	2,277
Burma	...	...	297	59-6	...	...	297	14,132	(*a*) 5,082
Eastern Bengal and Assam	...	...	367	99-6	...	...	367	1,947	...
Central Provinces (including Berar)	...	...	160	55-0	(*c*)461	5-8	621	19,298	576
Coorg	...	...	56	36-9	...	...	56	96	...
North West Frontier Province	9	13-9	...	...	70	6-2	79	445	495
Ajmer	...	...	...	...	...	...	...	144	...
Baluchistan	20	8-4	44	26-5	...	...	64	107	...
Total of Bengal Presidency	29	...	924	...	531	...	1,484	46,187	(*b*) 9,935
Madras	...	...	563	62-4	...	...	563	14,915	...
Bombay	...	...	394	19-1	(*c*) 205	5-2	599	12,943	...
Grand Total for 1908-09.	29	...	1,881	...	736	...	2,646	74,045	(*b*) 9,935
" " " 1907-08	43	...	2,676	...	43	...	2,762	71,399	6,199

(*a*) Cost of Survey of the Mosit reserve of 106 square miles.
(*b*) Exclusive of cost borne by the Survey of India and the Forest Map Office Head Quarters charges, ₹38,943.
(*c*) Linear miles.

APPENDIX VI.

[*Vide* paragraphs 6 to 8.]

Details of Forest Survey Operations.

Province.	Division or District.	Nature of Survey. 1-inch detail survey. Area in sq. miles.	1-inch detail survey. Cost rate.	2-inch detail survey. Area in sq. miles.	2-inch detail survey. Cost rate.	4-inch detail survey. Area in sq. miles.	4-inch detail survey. Cost rate.	Expenditure including mapping and publishing charges debitable to "Forests."	Remarks.
			R		R		R	R	
United Provinces. — Eastern Circle.	Pilibhit	...	...	...	...	...	...	166	Mapping and publishing charges.
	Kumaun	...	...	...	...	...	...	15	
	Kheri	...	...	...	...	...	...	2	
United Provinces. — Western Circle.	Naini Tal	...	...	...	...	...	...	447	Mapping and publishing charges for the second edition of the Kumaun and Garhwal maps.
	Garhwal	...	...	...	...	...	...	767	
	Ganges	...	...	...	...	...	...	108	
Total		...	...	...	...	...	...	1,505	
Punjab	Shahpur	...	...	...	...	...	...	895	Mapping and publishing charges.
	Bashahr	...	...	...	...	...	...	208	
	Jhelum	...	...	...	...	...	...	980	
	Rawalpindi	...	...	...	...	...	...	194	
Total		...	...	...	...	...	...	2,277	
Burma, Northern Circle	Myittha	...	...	12	96·2	...	...	(b) (g) 5,082	(f) Includes 106 sq. miles of Mosit reserve, specially surveyed for the Forest Department.
	Lower Chindwin	...	...	27		...	...		
	Bhamo	...	...	175(f)	54·1	...	...		
	Mu	...	...	43		...	...		
	Upper Chindwin	...	...	40		...	...		
Total		...	...	297	59·6	...	...	5,082	(g) Cost of 106 sq. miles of Mosit reserve, debitable to the Forest Department.
Eastern Bengal and Assam Eastern Circle.	Cachar	...	...	367	99·6	...	...	(b)	(a) Linear miles of boundary traverse (skeleton boundary survey).
Central Provinces	Berar	...	...	160	55·0	461(a)	5·8*	.. (b) 576(c)	(b) Cost borne by the Survey of India.
Coorg	Coorg	...	...	56	36·9	...	...	(b)	(c) Cost of preparation of Taluk maps.
North-West Frontier Province.	Hazara	9(d)	13 9	...	...	70†	6·2	...(b) 495(e)	(d) Includes 0·8 sq. mile of Rawalpindi.
Baluchistan	Baluchistan	20	8·4	44	26·5	...	...	(b)	(e) Mapping and publishing charges.
Madras, Southern Circle	Nilgiri	...	...	357	62·4	...	...	(b)	
	South Malabar	...	...	201		...	...		
	North Coimbatore	...	...	2		...	...		
	Central „	...	...	3		...	...		
Total		...	...	563	62·4	...	...	...	
Bombay, Central Circle	West Khandesh	...	...	133	19·1	96(h)	5·2(i)	(b)	(h) Linear miles of boundary Survey
	East „	...	...	261		109(h)			(i) Cost per linear mile.
Total	...	...	...	394	19·1	205(h)	5·2	...	
Forest Map Office, Head-Quarters.	...	...	...	...	...	...	...	38,943	
Grand Total for 1908-09.	...	29	...	1,881	...	736	...	48,878(j)	(j) Includes cost of instruments (4 per cent.)
Grand Total for 1907-08.	...	43	...	2,676	...	43	...	36,854	

* Cost per linear mile.
† Revision survey.

APPENDIX VII.

[*Vide* paragraphs 10 and 11.]

Areas brought under the control of sanctioned Working-Plans up to 30th June 1909 in the provinces outside the Madras and Bombay Presidencies.

Province.	Forest area, in square miles.				Area for which Working-Plans prepared and sanctioned up to 30th June 1909.	Proportion of Forest area under sanctioned Working-Plans.
	Reserved.	Protected.	Unclassed State.	Total.		
1	2	3	4	5	6	7
					Sq. miles.	Per cent.
Bengal	4,235	2,781	...	7,016	5,381	77
United Provinces . . .	4,092	30	55	4,177	3,780	90
Punjab	2,212	5,222	1,580	9,014	4,012	44
Burma	23,581	...	1,10,868	1,34,449	6,973	5
Eastern Bengal and Assam . .	6,311	...	22,703	29,014	1,300	4
Central Provinces including Berar .	21,918	...	3	21,921	12,652	58
Coorg	520	...	...	520	178	34
North-West Frontier . . .	236	...	...	236	236	100
Ajmer	142	...	6	148	140	95
Baluchistan	282	...	496	778	...	...
Andamans	161	...	1,791	1,952	...	...
Grand Total in 1908-09 .	63,690	8,033	1,37,502	2,09,225	34,652	17
„ „ „ 1907-08 .	63,246	8,064	1,33,839	2,05,149	31,825	16

APPENDIX VIII.

[*Vide* paragraphs 10 and 11.]

Progress in Working-Plans in the provinces outside the Madras and Bombay Presidencies during the year.

Province.	Preliminary proposals submitted to the Inspector General of Forests, for Working-Plans.		Completed plans submitted for opinion and remarks of Inspector General of Forests.		Plans finally sanctioned by Local Governments on recommendation of the Inspector General of Forests.	
	No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.
1	2	3	4	5	6	7
	No.	Sq. miles.	No.	Sq. miles.	No.	Sq. miles.
Bengal	...	...	2	295	2	295
United Provinces — Eastern Circle	2	829	2	630	2	367(*a*)
United Provinces — Western „	...	...	...	...	...	...
Punjab	...	...	...	...	...	...
Burma — Pegu Circle	...	...	...	...	...	...
Burma — Tenasserim „	...	...	1	269(*b*)	...	269
Burma — Northern „	1	135	2	499	2	499
Burma — Southern „	2	347	1	198	2	576
Eastern Bengal and Assam	2	45	1	6	1	197
Central Provinces — Northern Circle	1	666	...	...	2	959
Central Provinces — Southern „	...	...	...	...	...	...
Central Provinces — Berar „	2	2,201	...	...	...	...
Coorg	...	...	...	...	...	...
North-West Frontier	...	...	...	...	...	...
Ajmer	...	...	...	...	...	...
Baluchistan	...	...	...	...	...	...
Andamans	...	...	...	...	...	...
Total	10	4,223	9	1,893	11	3,162

Note.—The figures in this statement have been obtained from the Conservators.

(*a*) Includes 338 square miles of revised plans.

(*b*) Revised figure.

APPENDIX IX.

[*Vide* paragraphs 10 and 11.]

Comparative statement of progress made in Working-Plans.

Province.	Areas for which Working-Plans have been completed and sanctioned.		Areas for which Working-Plans are being compiled.		Areas for which Working-Plans have not yet been taken in hand.	Total forest area, as in Appendix II.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
1	2	3	4	5	6	7	8
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	
Bengal	(*a*)5,086*	295	...	326	1,309	7,016	
United Provinces — Eastern Circle	1,815	(*b*)367	(*c*)334	...	323	2,167	
United Provinces — Western „	(*d*)1,936	...	...	...	74	2,010	(*a*) Excludes 5 square miles of "other Reserves".
Punjab	(*d*)4,012	...	362	...	4,640	9,014	
Burma — Pegu Circle	1,672	...	...	131	29,937	31,740	
Burma — Tenasserim Circle	1,788	(*d*)269	...	25	29,576	31,658	
Burma — Northern „	38	499	493	(*e*)366	31,347	32,705	(*b*) Including 338 square miles for which a revised plan was sanctioned.
Burma — Southern „	2,131	(*d*)576	(*d*)408	502	34,729	38,346	
Eastern Bengal and Assam	1,103	197	164	207	27,343	29,014	
Central Provinces — Northern Circle	(*d*)3,907	959	...	...	2,499	7,365	
Central Provinces — Southern „	5,597	...	...	...	1,950	7,547	(*c*) Including 334 square miles for which a revised plan is under preparation.
Central Provinces — Berar „	2,189	...	...	...	4,820	7,009	
Coorg	178	...	...	...	342	520	
North-West Frontier	236	...	...	...	...	236	
Ajmer	140	...	...	...	8	148.	
Baluchistan	...	...	...	...	778	778	(*d*) Revised figures.
Andamans	...	...	(*f*)317	...	1,635	1,952	
Total Bengal	31,828	3,162	2,078	1,557	171,310	209,225	
Madras — Northern Circle	(*d*)2,186	...	(*d*)948	121	2,715	5,970	
Madras — Central „	(*d*)2,466	269	1,782	682	2,849	8,048	(*e*) Including 38 square miles for which a revised plan is under preparation.
Madras — Southern „	(*d*)2,270	(*d*)16	(*d*)318	...	2,948	5,552	
Total	6,922	285	3,048	803	8,512	19,570	
Bombay — Northern Circle	(*d*)1,788	64	...	...	673	2,525	
Bombay — Central „	2,332	94	416	1	2,179	5,022	(*f*) A working-plan for this area was compiled during 1906-07, but has not yet been sanctioned.
Bombay — Southern „	(*d*)946	186	(*d*)107	55	3,028	4,322	
Bombay — Sindh „	1,032	...	...	...	78	1,110	
Total	6,098	344	523	56	5,958	12,979	

* No explanation for the decrease of 2 square miles as compared with the figures of the last year is forthcoming.

APPENDIX X.

[*Vide* paragraphs 12 to 14.]

Expenditure on Communications and Buildings.

Province.	New Work.		Repairs.		Other Works.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
	R	R	R	R.	R	R
Bengal	10,276	16,401	10,578	10,360	. 2,461.	50,076
United Provinces	43,676	14,594	30,074	47,665	13,689	1,49,698
Punjab	21,666	31,826	9,138	22,803	2,101	87,534
Burma	80,718(*a*)	1,11,685	50,039	22,706	19,588	2,84,736
Eastern Bengal and Assam . .	45,868	26,091	23,692	17,754	9,214	1,22,619
Central Provinces including Berar .	79,040	66,820(*b*)	26,547	22,537	87,579	2,82,523
Coorg	601	70	841	1,578	84	3,174
North-West Frontier . . .	1,316	1,336	1,015	678	310	4,655
Ajmer	2,084	195	29	339	622	3,269
Baluchistan	...	...	136	...	3,670	3,806
Andamans	2,180	...	694	1,741	...	4,615
Total, Bengal . .	2,87,425	2,69,018	1,52,783	1,48,161	1,39,318	9,96,705
„ Madras . .	94,661	42,630	40,372	39,232	10,063	2,26,958
„ Bombay . .	63,187	11,912	15,129	29,227	26,606(*c*)	1,46,062
Grand Total 1908-09 .	4,45,273	3,23,560	2,08,284	2,16,620	1,75,987	13,69,724
„ „ 1907-08 .	4,64,060	3,48,394	1,81,440	2,01,237	1,75,692	13,70,823

(*a*) Excludes R3,282 paid in wages of rest-house darwans in the Tenasserim District.

(*b*) Includes R5,739, being the amount of contribution paid by the District Board of Buldana.

(*c*) Excludes R747 expended in Public Works accounts.

APPENDIX XI.

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules.

Province.	Number of cases decided by the courts.	Number of cases compounded.	Total.	Percentage of convictions to total number of cases decided by the courts.
Bengal	254	1,846	2,100	85·8
United Provinces	150	1,514	(*a*) 1,664	82·6
Punjab	767	5,793	6,560	84·7
Burma	1,081	2,435	3,516	84·0
Eastern Bengal and Assam	228	570	798	75·9
Central Provinces including Berar	400	7,310	7,710	79·7
Coorg	9	40	49	55·5
North-West Frontier	91	742	833	79·1
Ajmer	33	329	362	90·9
Baluchistan	53	5	58	90·6
Andamans	16	...	16	18·7
Total Bengal	3 082	20,584	23,666	82·7
„ Madras	(*b*) 5,295	(*c*) 16,634	21,929	87·6
„ Bombay	1,114	15,253	16,367	83·4
*Grand Total 1908-09	9,491	52,471	61,962	85·6
*Grand Total 1907-08	8,749	50,082	58,831	86·2
*Grand Total 1906-07	10,377	47,481	57,858	85·9
*Grand Total 1905-06	11,160	46,564	57,724	88·3

* Includes cases which were pending at the close of the previous year.

(*a*) Excludes breaches of rules in District Forests.

(*b*) and (*c*) Excludes 557 and 1,379 cases respectively withdrawn under the orders of the District Forest Officers.

APPENDIX XII.

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules.

Province.	Cases taken into Court.				Compounded cases.				Cases in which the offenders remained undetected.				Total of each class of offence.				
	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Injury to fire-protected forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is prohibited.	Other offences.	Grand total of cases.
Bengal	21	158	26	44	7	1,211	433	152	65	9	...	...	93	1,378	459	196	2,126
United Provinces	15	46	30	34	26	786	665	52	36	48	2	5	77	880	697	91	1,745
Punjab	28	475	202	99	20	2,733	2,975	58	130	23	8	1	178	3,231	3,185	158	6,752
Burma	19	909	57	93	19	1,500	109	870	66	91	...	2	104	2,500	166	965	3,735
Eastern Bengal and Assam	5	145	22	66	5	334	99	132	65	2	...	...	75	481	121	198	875
Central Provinces including Berar.	37	198	111	50	63	3,498	3,541	282	173	247	18	4	273	3,943	3,670	336	8,222
Coorg	4	...	...	3	...	7	9	24	...	...	...	...	4	7	9	27	47
North-West Frontier	36	82	18	3	7	397	305	33	10	13	4	...	103	492	327	36	958
Ajmer	1	16	16	...	2	177	149	1	5	...	...	...	8	193	165	1	367
Baluchistan	1	37	2	1	...	4	1	...	6	...	...	...	7	41	3	1	52
Andamans	...	8	...	...	...	...	...	...	...	...	...	...	...	8	...	...	8
Total Bengal	217	2,074	484	393	149	10,647	8,286	1,604	556	433	32	12	922	13,154	8,802	2,009	24,887
„ Madras	77	3,434	1,697	353	37	10,790	6,443	784	491	582	734	48	605	14,806	8,874	1,185	25,470
„ Bombay	121	647	368	97	158	6,465	8,023	900	1,809	2,166	105	83	2,088	9,278	8,497	1,080	20,943
*Grand Total, 1908-09	415	6,155	2,549	843	344	27,902	22,752	3,288	2,856	3,181	872	143	3,615	37,238	26,173	4,274	71,300
„ „ 1907-08	440	6,209	2,393	866	400	26,084	22,196	3,512	3,839	3,177	427	150	4,679	35,470	25,016	4,528	69,693
„ „ 1906-07	406	6,194	2,768	1,002	369	23,894	21,454	4,058	3,363	3,208	587	153	4,138	33,296	24,809	5,213	67,456
„ „ 1905-06	421	6,864	3,261	1,189	437	24,070	20,711	3,405	3,462	2,977	672	177	4,320	33,911	24,644	4,771	67,646

* Includes only the new cases of the year; not those which were left pending at the close of the previous year.

APPENDIX XIII.

[*Vide* paragraphs 17 and 18.]

Causes of Forest Fires.

Province.	I.—Fires due to preventible causes.				II.—Other fires.				Total.	
	Fires originating in Departmental Fire Conservancy operations.		External fire crossing the Fire traces.		Fires due to carelessness of outsiders or to unknown causes.		Fires originating from intention or malice.			
	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.	No.	Sq. m.
Bengal	6	·9	9	9·7	27	13·3	6	1	48	24·9
United Provinces . Eastern Circle	14	20·8	6	4·4	20	26·3	8	3·1	48	54·6
United Provinces . Western „	4	·1	4	3·4	18	6·1	4	5·2	30	14·8
Total	18	20·9	10	7·8	38	32·4	12	8·3	78	69·4
Punjab	4	·7	9	·3	159	11·9	25	5·6	197	18·5
Burma . Pegu Circle	19	8·3	21	4·4	58	·82	31	100 9	129	195·6
Burma . Tenasserim Circle	8	2·9	2	·3	26	25·0	4	17·8	40	46·0
Burma . Northern „	7	1·5	8	·3	3	1·3	1	...	19	3·1
Burma . Southern	5	8·9	8	8·8	28	3·7	8	10·8	49	32·2
Total	39	21·6	39	13·8	115	112·0	44	129·5	237	276·9
Eastern Bengal and Assam (*a*)	1	·1	40	279·1	38	64	10	10·6	89	353·8
Central Provinces . Northern Circle	19	6	4	·7	44	17·7	9	...	76	24·4
Central Provinces . Southern „	8	1	7	3·1	35	12·5	8	6·6	58	23·2
Central Provinces . Berar „	15	5	14	11·4	65	29·5	...	...	94	45·9
Total	42	12	25	15·2	144	59·7	17	6·6	228	93·5
Coorg	1	(*b*)	8	13·8	...	...	9	5·2	18	19·0
North-West Frontier	...	...	1	...	7	(*c*)	5	·2	13	·2
Ajmer	2	·4	1	(*d*)	5	·1	...	...	8	·5
Total Bengal	113	56·6	142	339·7	533	293·4	128	167·0	916	856·7
Madras . Northern Circle	14	3·4	19	2·7	87	28·9	20	15·2	140	50·2
Madras . Central „	2	(*e*)	18	6·5	144	38	45	8·8	209	53·3
Madras . Southern „	68	5·3	34	8·3	237	49·7	86	25·2	425	88·5
Total	84	8 7	71	17·5	468	116·6	151	49·2	774	192·0
Bombay . Northern Circle	40	1·5	39	5·6	427	61·3	6	3·7	512	72·1
Bombay . Central „	48	7·5	67	102·2	491	377·2	33	59·9	639	546·8
Bombay . Southern „	17	2·7	74	31·7	689	164·3	98	32·7	878	231·4
Bombay . Sindh „	...	...	1	(*f*)	43	2·6	25	1·3	69	3·9
Total	105	11·7	181	139·5	1,650	605·4	162	97·6	2,098	854·2
Grand Total . 1908-09	302	77·0	394	496·7	2,651	1,015·4	441	313·8	3,788	1,902·9
Grand Total . 1907-08	351	223 7	551	676·9	3,572	1,678·4	727	596·6	5,201	3,175·6

(*a*) The figures shewn refer only to specially protected areas.
(*b*) An area of only one acre was burnt.
(*c*) „ „ „ 8 acres „ „
(*d*) An area of only 23 acres was burnt.
(*e*) „ „ „ 5 „ „ „
(*f*) „ „ „ 15 „ „ „

APPENDIX XIV.

[*Vide* paragraphs 19 and 20.]

Protection from Cattle.

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			All classes of Forests.		
	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals.	Area closed to browsers only.	Total areas.	Area closed to all animals	Area closed to browsers only.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.
Bengal	4,235	3,647	88	2,781	1,731	290	...	...	...	7,016	5,378	378
United Provinces	4,092	2,159	582	30	...	30	55	...	43	4,177	2,159	655
Punjab	2,212	423	482	5,222	85	176	1,580	8	68	9,014	516	726
Burma	23,581	19,099	86	...	...	...	1,10,868	...	...	1,34,449	19,099	86
Eastern Bengal and Assam	6,311	4,403	1,159	...	...	...	22,703	4	...	29,014	4 407	1,159
Central Provinces including Berar.	21,918	3,927	8,374	...	...	...	3	...	...	21,921	3,927	8,374
Coorg	520	158	...	...	...	...	...	...	...	520	158	...
North-West Frontier	236	91	45	...	...	...	...	...	...	236	91	45
Ajmer	142	29	142	...	...	...	6	6	...	148	35	142
Baluchistan	282	204	5	...	...	...	496	...	...	778	204	5
Andamans	161	161	...	...	...	...	1,791	...	...	1,952	161	...
Total Bengal	63,690	34,301	10,963	8,033	1,816	496	1,37,502	18	111	2,09,225	36,135	11,570
Madras	18,694	2,204	*792	...	...	...	876	75	...	19,570	2,279	*792
Bombay (including Sind)	12,177	2,774	8,507	802	...	33	...	...	...	12,979	2,774	8,540
Grand Total 1908-09	94,561	39,279	20,262	8,835	1,816	529	1,38,378	93	111	2,41,774	41,188	20,902
Grand Total 1907-08	94,059	37,174	20,029	8,853	1,815	514	1,34,897	90	96	2,37,809	39,079	20,639

Note.—The areas shown as closed in this statement are those closed for the *whole* year.

*This refers to all browsers ; goats were admitted to 983 square miles only.

APPENDIX XV.

[*Vide* paragraphs 19 and 20.]

Protection from cattle.

Province.	Circle.	Grazed on payment, number of animals. — At full rates.					Grazed on payment, number of animals. — At privileged rates.				
		Buffaloes.	Cows and bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
Bengal	...	6,843	33,555	5,261	...	32	9,532	153,424	12,619	...	540
United Provinces.	Eastern	41,422	134,733	1,752	2,222	1,488	30,329	137,007	42,005	...	751
	Western	24,458	52,119	24,534	1,756	10,589	5,000	24,872	61,764	...	538
Total	...	65,880	186,852	26,286	3,978	12,077	35,329	161,879	103,769	...	1,289
Punjab	...	17,148	39,278	357,947	10,171	1,564	50	6,279	232,684	5	75
Burma	Pegu	3,807	1,092	...	...	1	...	...	...	...	...
	Tenasserim.	54	176	...	...	...	...	...	...	...	...
	Northern	257	...	...	...	...	70	...	...	...	...
	Southern	198	16,537	2,382	...	16	...	...	...	...	...
Total	...	4,316	17,805	2,382	...	17	70	...	...	...	...
Eastern Bengal and Assam.	...	52,116	13,962	48	...	573	...	84,012	...	...	...
Central Provinces.	Northern	207,931	1,095,100	92,299	...	3,549	...	...	...	...	...
	Southern	72,752	364,167	122,338	...	487	22,337	380,643	17,595	...	59
	Berar	175,465	917,647	442,587	141	3,771	20,155	141,339	6,090	...	384
Total	...	456,148	2,376,914	657,224	141	7,807	42,492	521,982	23,685	...	443
Coorg	...	307	2,573	...	...	...	...	...	...	...	...
North-West Frontier.	...	922	787	54	...	63	...	...	...	...	...
Ajmer	...	89	1,332	...	...	...	1,517	8,040	...	...	...
Baluchistan	...	320	2,225	269	...	12	...	...	...	...	...
Total Bengal.	1908-09	604,149	2,675,283	1,049,471	14,290	22,145	88,990	935,616	372,757	5	2,347
	1907-08	499,880	2,248,398	1,080,389	19,588	31,220	112,318	992,518	430,050	116	3,157
Madras	Northern	83,292	437,977	598,367	...	...	6,417	35,542	7,340	...	...
	Central	56,414	920,482	1,360,892	...	...	...	236	791	...	...
	Southern	31 718	354,565	180,065	...	177	...	418	...	...	...
Total	1908-09	*171,424	*1,713,024	*2,139,324	...	*177	6,417	36,196	8,131	...	...
	1907-08	162,267	1,663,364	2,116,140	...	323	7,258	39,200	7,893	...	...
Bombay	Northern	1,103	3,506	...	...	31	5,189	78,300	61	...	278
	Central	15,971	137,858	102,210	...	2,354	61,295	487,152	189,066	...	3,250
	Southern	...	9,404	4,028	...	...	...	352,877	2,945	...	57
	Sindh	8,082	8,321	47,886	1,091	188	882	1,563	2,155	45	33
Total	1908-09	25,156	†159,089	154,124	1,091	2,573	67,366	†919,892	194,227	45	3,618
	1907-08	20,116	43,380	50,763	1,340	1,723	106,101	655,577	152,415	75	2,495
Grand Total.	1908-09	860,729	4,547,396	3,342,919	15,381	24,895	162,773	1,891,704	575,115	50	5,965
	1907-08	682,263	3,955,142	3,247,292	20,928	33,266	225,677	1,687,295	590,358	191	5,652

Province.	Circle.	Grazed free, number of animals. — By right under Settlement.					During pleasure of Government or otherwise than under Settlement.				
		Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
Bengal	...	21,000	63,000	21,000	...	...	117	290	130	...	1
United Provinces.	Eastern	15,206	72,899	13,343	...	1,198	3,007	14,297	973	...	808
	Western	9,213	65,301	39,174	...	21	575	8,855	36	...	...
Total	...	24,419	138,200	52,517	...	1,219	3,582	23,152	1,009	...	808
Punjab	...	145,680	646,206	690,300	396	13,732	42	756	63	3,915	48
Burma	Pegu	21,305	43,405	...	...	1	...	...	...	...	27
	Tenasserim.	4,797	44,805	...	...	9	...	...	...	...	...
	Northern	22,896	2,599	...	...	...	824	...	...	...	304
	Southern	2,056	80,706	...	...	...	382	...	...	...	810
Total	...	51,054	171,515	...	...	10	1,206	...	...	...	1,141
Eastern Bengal and Assam.	...	60	...	...	...	...	63,004	375,929	72,477	...	568
Central Provinces.	Northern	...	...	...	...	...	1,942	28,931	1,019	...	...
	Southern	...	...	...	...	...	646	11,663	44	...	18
	Berar	105,723	...	...	...	...	118	15,345	1,091	...	89
Total	...	105,723	...	...	...	...	2,706	56,439	2,154	...	107
Coorg	...	256	...	...	...	...	...	...	...	...	...
North-West Frontier.	...	370	740	...	...	...	1,402	7,098	...	...	15
Ajmer	...	...	...	...	...	...	199	1,140	...	...	...
Baluchistan	...	1,337	21,959	1	662	...	...	...	...	...	...
Total Bengal.	1908-09	242,583	1,126,977	785,776	397	15,623	72,258	464,804	75,833	3,915	2,688
	1907-08	235,446	1,121,899	795,376	283	14,836	224,380	1,150,711	131,649	4,451	4,158
Madras	Northern	...	2,685	5,505	...	...	4,462	38,900	...	...	...
	Central	...	617	...	...	...	1,140	3,213	672	...	...
	Southern	1,189	...	...	...	...	...	...	...	...	...
Total	1908-09	1,189	3,302	5,505	...	...	5,602	42,113	672	...	...
	1907-08	2,345	3,269	5,505	...	...	2,739	33,867	355	...	...
Bombay	Northern	...	...	...	...	...	49,341	298,441	...	...	...
	Central	10,979	95,303	...	...	1,249	...	...	...	...	...
	Southern	...	...	...	...	...	...	...	...	...	...
	Sindh	2,930	10,686	91	4	113	418	1,271	749	786	2,594
Total	1908-09	13,909	105,989	91	4	1,362	50,289	299,712	749	786	2,594
	1907-08	7,175	29,921	91	2	336	53,651	282,804	777	792	1,654
Grand Total.	1908-09	257,681	1,236,268	791,327	401	16,985	128,149	806,629	77,254	14,701	5,282
	1907-08	244,966	1,135,089	800,972	285	15,222	280,770	1,467,382	132,781	5,243	5,812

* Includes cattle grazing at enhanced or special rates.
† Includes buffaloes in the Southern Circle.

APPENDIX XVI.

[*Vide* paragraph 23.]

Area of Plantations and the cost of the year's work.

Province.	AREA IN ACRES.												Cost of operations during the year.
	At commencement of the year.			Added during the year.			Excluded during the year.			Balance at close of the year.			
	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	Regular Plantations.	Taungyas.	Total.	
Bengal	764	85	849	168	...	168	...	...	...	932	85	1,017	1,478
United Provinces	4,803	...	4,803	528	...	528	...	...	...	5,331	...	5,331	4,552
Punjab	507	...	507	...	...	...	507	...	507	...	...	...	...
Burma	5,234	(a) 74,928	(a) 80,162	...	707	707	90	301	391	5,144	75,334	80,478	75,059
Eastern Bengal and Assam.	3,858	7	3,865	48	...	48	...	...	...	3,906	7	3,913	4,767
Central Provinces including Berar.	1,305	4,084	5,389	278	1,613	1,891	109	1,702	1,811	1,474	3,995	5,469	1,866
Coorg.	2,062	1,221	3,283	...	159	159	...	...	...	2,062	1,380	3,442	2,229
North-West Frontier	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	64	...	64	6	...	6	...	...	...	70	...	70	1,002
Baluchistan	33	...	33	...	...	...	...	...	...	33	...	33	72
Andamans	763	832	1,595	17	263	280	...	...	...	780	1,095	1,875	6,920
Total Bengal	19,393	81,157	100,550	1,045	2,742	3,787	706	2,003	2,709	19,732	81,896	101,628	97,945
Madras	(a) 25,139	2,227	(a) 27,366	2,193	...	2,193	222	...	222	27,110	2,227	29,337	119,013
Bombay	(b) 13,217	...	(b) 13,217	1,387	...	1,387	2,666	...	2,666	11,938	...	11,938	18,845
Grand Total 1908-09	(a) 57,749	(a) 83,384	(a) 141,133	4,625	2,742	7,367	3,594	2,003	5,597	58,780	84,123	142,903	235,803
Grand Total 1907-08	58,955	81,966	140,921	5,496	2,585	8,081	3,206	1,380	4,586	61,245	83,171	144,416	236,966

(a) Revised figures.
(b) Revised figures the difference being chiefly due to the transfer of 3,151 acres to " cultural operations ".

APPENDIX XVII.

[*Vide* paragraph 31.]

Outturn of Forest Produce.

I

Province.	Reserved Forests.			Protected Forests.			Unclassed Forests.			Average outturn per square mile. Reserved Forests.			Protected Forests.			Unclassed Forests.		
	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.	Timber and Fuel.	Bamboos.	Minor Produce.
	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R	C. ft.	No.	R
Bengal	19,606,217	6,600,682	1,68,272	17,721,166	4,577,873	1,36,410	(a) 7,788	...	...	4,630	1,559	40	6,372	1,646	49	...	...	...
United Provinces	14,215,272	11,407,547	5,00,641	362,947	7,302	3,582	93,415	...	3,013	3,474	2,788	122	12,098	243	119	1,698	...	55
Punjab	6,788,537	236,281	2,61,396	17,201,142	61,804	2,26,198	1,151,206	17,227	61,606	3,069	107	118	3,294	12	44	729	11	39
Burma	12,111,825	19,396,000	2,13,430	...	...	...	33,430,409	47,897,000	2,40,497	514	822	9	...	...	...	302	432	2
Eastern Bengal and Assam.	6,414,627	11,884,747	1,13,558	...	...	...	11,882,269	12,016,031	6,28,404	1,016	1,883	18	...	...	...	523	529	28
Central Provinces including Berar.	21,105,855	19,958,525	13,15,621	...	...	...	...	...	...	963	911	60	...	...	...	...	...	...
Coorg	158,701	85,150	19,553	141,930	35,390	...	...	...	...	807	164	38	...	...	...	...	...	...
North-West Frontier	810,305	...	13,301	...	...	...	...	...	...	3,434	...	56	...	...	...	...	...	...
Ajmer	583,680	...	12,792	...	...	83	...	...	...	4,110	...	90	...	...	...	...	...	...
Baluchistan	82,366	...	17,885	...	...	...	340,025	...	27	292	...	63	...	...	...	686	...	...
Andamans	431,745	383,716	2,001	...	...	...	967,686	643,101	1,619	2,682	2,383	12	...	...	...	540	360	1
Total, Bengal, 1908-09	82,310,130	69,952,648	26,38,450	35,427,185	4,682,369	3,68,278	47,872,798	60,573,359	9,35,166	1,292	1,100	41	4,410	583	46	349	440	7
„ „ 1907-08	87,285,827	73,128,715	29,73,372	35,622,194	4,575,034	3,91,731	46,616,052	55,332,022	8,53,016	1,376	1,153	47	4,417	567	48	348	413	6

(a) This outturn from unclassed forests is credited to the Singhbhum Division. There are however no unclassed forests in Bengal.

II

Presidency.	Total area under control of Forest Department.	Timber and Fuel.	Bamboos.	Minor produce.	Average Outturn per square mile. Timber and Fuel.	Bamboos.	Minor produce.
	Sq. m.	C. ft.	No.	R	C. ft.	No.	R
Bengal	209,225	165,610,113	135,208,376	39,41,889	792	646	19
Madras	19,570	24,415,574	32,001,730	15,79,521	1,248	1,635	81
Bombay	12,979	42,010,178	13,065,915	14,17,333	3,237	1,007	109
Grand Total 1908-09	241,774	232,035,865	180,276,021	69,38,743	960	746	29
Grand Total 1907-08	237,809	234,982,123	193,427,023	71,39,241	996	813	30

APPENDIX XVIII.

Forest Produce removed by different Agencies.

APPENDIX

[*Vide* para

Forest Produce removed

Province.	Timber.				Fuel.			
	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	16,849	5,271,213	10,169	175,200	20,289	18,383,967	530	13,456,954
United Provinces	57,854	4,108,659	63,269	311,550	587,084	6,023,362	308,727	3,211,129
Punjab	113,016	1,589,390	27,309	761,343	1,140,182	2,191,933	100,120	19,217,592
Burma	3,087,141	26,289,523	699,023	809,975	201,012	13,628,461	87,376	739,723
Eastern Bengal and Assam	557,079	5,390,426	538,196	...	22,994	6,022,147	4,305,364	1,460,690
Central Provinces including Berar	841,280	3,493,548	119,132	43,609	1,046,571	12,978,742	1,037,488	1,545,490
Coorg	118,734	114,127	...	...	13,750	55,020	...	...
North-West Frontier	71,685	341,648	1,483	...	165,614	182,439	12,456	34,980
Ajmer	29	3,038	...	17,025	71,306	480,568	11,514	200
Baluchistan	1,183	9,278	9,841	...	72,921	328,184	984	...
Andamans	340,584	46,695	32,055	63,904	622,700	20,400	256,440	16,653
Total Bengal 1908-09	5,205,434	46,657,545	1,500,477	2,182,606	3,964,423	60,295,223	6,120,994	39,683,411
Total Bengal 1907-08	5,983,519	46,083,772	1,853,676	2,072,309	4,029,112	61,038,914	7,613,849	40,848,922
Madras	614,419	2,506,889	174,721	78,353	12,085,902	8,777,887	22,709	154,694
Bombay	(a)988,413	(b)4,109,669	139,140	(c)302,228	4,053,968	25,165,620	14,089	(c)7,287,051
Grand Total 1908-09	6,758,266	53,274,103	1,814,338	2,563,187	20,104,293	94,238,730	6,157,792	47,125,156
Grand Total 1907-08	7,823,674	52,965,071	2,112,544	2,464,266	21,546,742	92,015,666	7,653,314	48,400,846

(a) Excludes 392 trees, 136 Khandies of billets and 11 heaps of sandalwood.
(b) Excludes 2 sandalwood trees.

XVIII.

graph 28.]

by different agencies.

Bamboos.				Minor Produce including Grass and Grazing.				
Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Removed by Government.	Removed by Purchasers.	Removed by Free-grantees.	Removed by Right-holders.	Province.
No.	No.	No.	No.	R	R	R	R	
423,806	6,735,349	19,400	4,000,000	774	1,90,2 8	729	1,12,911	Bengal.
27,734	11,157,359	4,075	225,681	1,02,970	3,22,612	25,613	56,041	United Provinces.
40,907	273,955	...	450	8,740	1,97,258	962	3,44,240	Punjab.
10,000	61,311,000	32,000	5,940,000	12,520	2,59,253	13,113	1,69,041	Burma.
19,310	19,582,168	1,498,900	2,800,400	37,945	2,83,305	3,99,694	21,018	Eastern Bengal and Assam.
387,305	18,565,825	389,995	615,400	35,738	12,22,401	18,579	38,903	Central Provinces including Berar.
...	120,540	...	...	...	19.553	...	...	Coorg.
...	...	...	...	408	4,635	7,532	726	North-West Frontier.
...	...	...	...	1,706	2,102	249	8,818	Ajmer.
...	...	...	...	11	1,227	342	16,332	Baluchistan.
1,100	72,050	427,400	526,267	428	270	2,724	198	Andamans.
910,162	117,818,246	2,371,770	14,108,198	2,01,240	25,02,884	4,69,537	7,68,228	Total Bengal 1908-09.
1,143,076	115,736,834	2,657,586	13,498,275	2,13,350	24,67,850	7,55,578	7,81,341	Total Bengal 1907-08.
6,111,168	25,725,115	152,254	13,193	54,460	14,81,236	1,650	41,575	Madras.
68,460	6,710,963	24,805	(c)6,261,687	39,735	6,05,763	7,872	(d) 7,63,963	Bombay.
7,089,790	150,254,324	2,548,829	20,383,078	2,95,435	45,90,483	4,79,059	15,73,766	Grand Total 1908-09.
10,497,291	157,781,963	2,987,151	22,160,618	3,32,571	46,53,786	7,68,135	13,84,749	Grand Total 1907-08.

(c) Compiled partly from the reports and partly from Form 62, as the produce extracted is not invariably included in the latter.
(d) Compiled from Form 63 only.

APPENDIX XIX.

[*Vide* paragraphs 33 to 39.]

Comparative Statement of Revenue and Expenditure—Financial year 1908-09.

Provinces.	Revenue.		Surplus.		Deficit.		Proportion of Surplus to Gross Revenue.	Net Revenue per square mile of land under control of Forest Department.
	1908-09.	Average for preceding 5 years.	1908-09.	Average for preceding 5 years.	1908-09.	Average for preceding 5 years.		
	R	R	R	R	R	R	Per cent.	R
Imperial	8,189	5,229	...	...	95,994	85,140	...	...
Bengal	11,84,845	11,23,009	6,00,864	4,56,532	...	...	50·7	85
United Provinces . . .	21,75,406	24,04,720	9,52,970	11,28,947	...	...	43·8	228
Punjab	12,88,792	16,87,325	4,37,165	5,36,619	...	...	33·9	48
Burma	91,92,032	92,06,934	54,74,785	56,17,198	...	...	59·5	40
Eastern Bengal and Assam .	14,46,368	10,69,709	5,55,019	4,63,452	...	...	38·3	18
Central Provinces and Berar .	20,78,162	22,30,382	3,24,855	8,63,378	...	...	15·6	15
Coorg	2,24,330	1,94,640	1,24,735	1,38,754	...	...	55·6	240
North-West Frontier . .	1,22,782	1,48,611	41,369	70,038	...	...	33·6	175
Ajmer	27,615	18,876	7,699	1,357	...	...	27·9	52
Baluchistan	23,305	21,685	...	...	13,281	4,254	...	...
Andamans	2,02,018	5,06,907	21,077	2,13,119	...	...	10·4	11
Imperial Forest College and Research Institute.	4,680	4,078	...	...	1,78,511	95,313	...	...
Forest Surveys . . .	...	86	...	...	39,128	29,845	...	...
Total Bengal .	1,79,78,524	1,86,62,192	82,13,624	92,71,490	...	...	45·7	40
Madras	38,90,919	31,27,809	9,73,658	8,74,780	...	...	25·0	50
Bombay	35,87,356	32,65,150	15,43,483	13,14,861	...	...	43·0	120
Grand Total . 1908-09 .	2,54,56,799	2,50,55,156	1,07,30,765	1,14,61,131	...	...	42·1	44
Grand Total . 1907-08 .	2,58,62,979	2,37,76,863	1,13,50,046	1,08,35,563	...	...	43·8	47

APPENDIX XX.

[*Vide* paragraph 38.]

Estimated value of Forest Produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Minor Produce.	Grass and Grazing.	Total.
	R	R	R	R	R	R
Bengal	9,154	58,700	4,937	66,607	45,063	1,84,461
United Provinces . .	58,361	53,240	1,386	3,990	83,581	2,00,558
Punjab	49,290	6,02,454	2	3,22,626	22,576	9,96,948
Burma	1,71,755	12,950	38,109	39,763	1,41,800	4,04,377
Eastern Bengal and Assam .	32,540	70,999	11,418	2,15,996	1,69,977	5,00,930
Central Provinces including Berar.	10,129	50,761	2,019	40,607	35,941	1,39,457
Coorg	...	...	...	...	...	...
North-West Frontier. .	720	1,160	...	100	8,158	10,138
Ajmer	2,128	185	...	9,058	24	11,395
Baluchistan . .	900	50	...	342	16,332	17,624
Andamans . . .	(a) 9,304	7,280	(b) 277	(c) 2,714	...	19,575
Total Bengal .	3,44,281	8,57,779	58,148	7,01,803	5,23,452	24,85,463
„ Madras .	51,012	5,337	1,056	40,437	6,278	1,04,120
„ Bombay .	1,00,650	7,83,669	41,647	2,60,920	8,20,981	20,07,867
Grand Total 1908-09 .	4,95,943	16,46,785	1,00,851	10,03,160	13,50,711	45,97,450
Grand Total 1907-08 .	5,12,037	16,42,333	2,37,292	6,76,361	18,85,296	49,53,319

(*a*) Excludes R444 the value of free samples of Andaman timber sent to various places.
(*b*) „ R329 the value of bamboos removed by district officers.
(*c*) „ R198 the value of minor produce „ „

APPENDIX XXI.

[*Vide* paragraph 39.]

Details of Revenue and Expenditure.

					R
Gross Receipts.	(*a*) Wood				1,92,15,497
	(*b*) Minor forest produce				20,77,826
	(*c*) Forest stamps and communication fees for forest produce				7,14,639
	(*d*) Grazing				22,04,942
	(*e*) Revenue from forests not managed by Government				3,72,347
	(*f*) Miscellaneous				8,71,548
				TOTAL REVENUE	2,54,56,799
Expenditure	A Recurring	(*a*) Administration.	(i) Superior Staff		27,66,630
			(ii) Exchange compensation allowance.		3,601
			(iii) Subordinate Staff (including Rangers, Foresters and Guards).		24,76,158
			(iv) Office Establishments (including Contingencies).		15,04,247
		(*b*) Working	(1) Extraction		34,60,429
			(2) Roads and Buildings		14,19,511
			(3) Fire-protection		6,54,221
			(4) Cultural operations		6,62,091
			(5) Live-stock, stores and plant.		4,66,013
			(6) Working-Plans		72,711
			(7) Rent for leased forests		4,21,550
			(8) Miscellaneous		2,65,246
		(*c*) Expenditure on realization of revenue from forests not managed by Government.			32,902
		(*d*) Forest Science and Education (including all "A" and "B" charges of Forest School).			1,83,191
				Total	1,43,88,501
	B Extraordinary	(*e*) Forest Settlement			67,544
		(*f*) Forest Surveys			1,15,964
		(*g*) Forests Demarcation			1,54,025
				Total	3,37,533
				GRAND TOTAL EXPENDITURE	1,47,26,034
				Net Revenue	1,07,30,765

APPENDIX XXII.

Summary of Revenue and Expenditure of the Forest Department in India for the financial year 1908-09.

APPEN

[*Vide* paragraphs

Summary of Revenue and Expenditure of the Forest

Budget Heads.	(a) Imperial.	Bengal.	United Provinces.	Punjab.	Burma (Upper and Lower.)	Eastern Bengal and Assam.	Central Provinces including Berar.	Coorg.	North-West Frontier Province.
	R	R	R	R	R	R	R	R	
REVENUE.									
I.—Timber and other produce removed from the forests by Government agency.	319	17,669	1,48,563	5,18,140	28,88,868	3,19,935	1,46,076	1,82,666	45,257
II.—Timber and other produce removed from the forests by consumers or purchasers.	7,870	11,24,366	19,30,708	6,85,259	57,54,267	9,17,886	18,28,739	33,886	66,673
III.—Drift and waif wood and confiscated forest produce.	...	1,937	12,427	31,599	2,04,246	35,928	1,780	...	23
IV.—Revenue from forests not managed by Government.	...	...	14,006	1,904	2,27,132	1,03,883	707	...	3,464
V.—Miscellaneous	...	40,873	69,702	51,890	1,17,519	68,736	1,00,860	7,778	7,365
Total Revenue .	8,189	11,84,845	21,75,406	12,88,792	91,92,032	14,46,368	20,78,162	2,24,330	1,22,782
EXPENDITURE.									
A.—Conservancy and Works.									
I.—Timber and other produce removed from the forests by Government agency.	...	8,072	1,11,718	1,12,747	9,48,996	1,86,243	61,157	16,905	25,194
II.—Timber and other produce removed from the forests by consumers or purchasers.	...	94,775	43,132	5,433	98,358	18,477	1,14,629	...	235
III.—Drift and waif wood and confiscated forest produce.	...	804	4,064	7,818	1,16,991	1,448	11	...	7
IV.—Revenue from forests not managed by Government.	...	...	3,590	...	3,553	25,497	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	...	5,227	1,49,081	1,72,413	...	46,517	...	...	6,196
VI.—Live-stock, stores, tools and plant.	...	41,353	29,916	10,420	93,474	27,350	40,680	8,067	1,442
VII.—Communications and buildings .	...	54,346	1,73,010	87,881	2,89,286	1,15,147	3,25,657	3,059	5,266
VIII.—Demarcation, improvement, and extension of forests.	(b) 532	70,718	1,46,769	51,447	5,29,015	64,062	2,02,670	12,789	1,788
IX.—Miscellaneous	...	4,089	22,297	18,692	27,571	7,508	21,406	1,091	2,005
Total A.—Conservancy and Works .	532	2,79,384	6,33,577	4,66,851	21,07,244	4,92,249	7,66,210	41,911	42,133
B.—Establishments.									
I.—Salaries	1,03,176	2,33,092	4,27,851	2,92,113	13,25,314	3,05,271	7,94,198	48,533	31,305
II.—Travelling allowances . .	...	43,751	60,355	58,123	2,07,131	53,433	78,293	7,133	5,072
III.—Contingencies	(b)475	27,754	50,653	34,540	77,558	40,396	1,14,606	2,018	2,903
Total B.—Establishments .	1,03,651	3,04,597	5,38,859	3,84,776	16,10,003	3,99,100	9,87,097	57,684	39,280
Grand Total of Expenditure .	1,04,183	5,83,981	12,22,436	8,51,627	37,17,247	8,91,349	17,53,307	99,595	81,413
Surplus .	...	6,00,864	9,52,970	4,37,165	54,74,785	5,55,019	3,24,855	1,24,735	41,369
Deficit .	95,994	...	...	...	...	...	...	...	...

(a) Includes revenue derived
(b) Represents Expenditure

DIX XXII.

33 to 37.]

Department in India for the financial year 1908-09.

Ajmer.	Baluchistan.	Andamans.	Forest Research Institute and College.	Forest Surveys (Imperial.)	Total Bengal Presidency.	Madras.	Bombay.	Grand Total.	Budget Heads.
R	R	R	R	R	R	R	R	R	
									REVENUE.
4,396	12,900	1,82,354	...	...	44,67,143	13,53,211	11,75,562	69,95,916	I.—Timber and other produce removed from the forests by Government agency.
22,166	1,729	8,628	...	...	1,23,82,177	23,29,429	22,91,732	1,70,03,338	II.—Timber and other produce removed from the forests by consumers or purchasers.
15	6	...	...	...	2,87,961	13,929	5,200	3,07,090	III.—Drift and waif wood and confiscated forest produce.
...	8,391	...	...	...	3,59,487	...	12,860	3,72,347	IV.—Revenue from forests not managed by Government.
1,038	279	11,036	4,680	...	4,81,756	1,94,350	1,02,002	7,78,108	V.—Miscellaneous.
27,615	23,305	2,02,018	4,680	...	1,79,78,524	38,90,919	35,87,356	2,54,56,799	Total Revenue.
									EXPENDITURE.
									A.—Conservancy and Works.
1,614	7,540	98,360	...	...	15,78,546	7,27,686	4,57,976	27,64,208	I.—Timber and other produce removed from the forests by Government agency.
235	...	...	...	...	3,75,274	1,17,512	69,919	5,62,705	II.—Timber and other produce removed from the forests by consumers or purchasers.
1	...	...	...	...	1,31,144	2,069	303	1,33,516	III.—Drift and waif wood and confiscated forest produce.
...	262	...	...	...	32,902	...	...	32,902	IV.—Revenue from forests not managed by Government.
...	...	...	...	...	3,79,434	15,521	26,595	4,21,550	V.—Rent of leased forests and payments to share-holders in forests managed by Government.
206	109	33,937	11,416	...	2,98,370	1,53,480	25,579	4,77,429	VI.—Live-stock, stores, tools and plant.
2,551	3,819	4,864	16,395	...	10,81,281	2,17,757	1,36,868	14,35,906	VII.—Communications and buildings.
1,441	185	7,031	...	39,128	11,27,575	4,37,126	1,61,855	17,26,556	VIII.—Demarcation, improvement and extension of forests.
155	45	625	8,751	...	1,14,235	74,428	85,334	2,73,997	IX.—Miscellaneous.
6,203	11,960	1,44,817	36,562	39,128	51,18,761	17,45,579	9,64,429	78,28,769	Total A.—Conservancy and Works.
									B.—Establishment.
11,153	19,395	32,041	1,20,736	...	37,44,178	9,06,876	9,00,535	55,51,589	I.—Salaries.
1,386	3,897	3,676	11,028	...	5,33,278	1,80,460	1,23,565	8,37,303	II.—Travelling allowances.
1,174	1,334	407	14,865	...	3,68,683	84,346	55,344	5,08,373	III.—Contingencies.
13,713	24,626	36,124	1,46,629	...	46,46,139	11,71,682	10,79,444	68,97,265	Total B.—Establishments.
19,916	36,586	1,80,941	1,83,191	39,128	97,64,900	29,17,261	20,43,873	1,47,26,034	Grand Total of Expenditure.
7,699	...	21,077	...	...	82,13,624	9,73,658	15,43,483	1,07,30,765	Surplus.
...	13,281	...	1,78,511	39,128	...	...	...	...	Deficit.

from Indore Agency.
on account of Indore.

APPEN

[*Vide* paragraphs

Revenue, Expenditure and Surplus of the Forest Department throughout

(I) REVE

Province.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.
	R	R	R	R	R	R	R	R	R	R	R	R	R
Imperial*	26,574	14,708	4,186	4,847	4,017	4,759	6,370	6,688	5,240	2,680	4,980	2,690	4,100
Bengal	5,71,152	5,97,432	653,634	6,57,794	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710	13,70,850
United Provinces	15,72,319	14,61,495	15,73,556	12,47,454	14,62,802	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860	16,58,250	16,01,340	14,44,820
Punjab	7,49,352	8,50,419	11,27,277	7,86,936	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500	11,07,720
Burma	16,70,982	20,23,859	21,06,741	25,15,773	41,89,233	49,40,786	43,21,968	41,85,414	56,60,000	57,85,100	54,36,780	56,95,830	63,78,950
Eastern Bengal and Assam	1,80,414	1,96,656	2,12,011	2,67,312	3,03,882	3,79,498	3,26,793	3,36,129	3,82,880	4,88,500	4,35,090	4,25,030	4,36,440
Central Provinces and Berar	13,25,321	13,57,376	12,84,322	15,00,412	15,38,382	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140
Coorg	1,13,233	89,386	99,291	1,27,028	1,36,183	92,753	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	10,456	9,697	11,274	14,293	13,574	11,592	15,266	19,799	14,890	14,620	12,340	15,640	12,370
Baluchistan	6,089	14,962	14,081	14,063	5,668	13,897	15,724	20,609	19,030	20,730	16,300	14,330	15,460
Andamans	22,213	23,944	31,870	1,04,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370
Imperial Forest College	73	273	415	777	419	1,237	1,184	1,788	1,980	1,990	2,790	4,310	2,850
Forest Surveys (Imperial)	234	202	241	40	315	220	2,104	257	520	2,400	80	510	400
Total	62,48,412	66,40,409	71,18,899	72,40,791	95,33,255	1,06,08,249	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14,52,140	1,25,20,470
Madras	11,66,916	11,98,650	12,46,911	13,74,920	15,15,006	15,57,627	17,95,408	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	23,03,330
Bombay	27,74,842	33,66,286	30,32,676	30,32,577	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670	30,32,710
Grand Total	1,01,90,170	1,12,05,345	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510

(II) EXPEN

Imperial*	96,306	88,245	86,299	78,626	86,199	81,311	85,414	65,788	1,07,270	80,840	84,950	80,410	78,960
Bengal	4,11,915	3,70,399	4,22,781	3,90,368	3,76,270	3,98,150	4,14,004	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070	6,90,040
United Provinces	10,20,101	9,74,519	9,19,580	8,30,748	8,41,544	9,63,151	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860	9,06,340
Punjab	5,58,070	6,75,483	7,16,510	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7,23,300
Burma	12,12,233	11,50,952	10,78,018	11,53,846	20,17,073	16,06,644	13,38,789	16,98,980	18,05,000	18,62,500	19,17,990	19,33,600	21,28,820
Eastern Bengal and Assam	1,97,699	2,11,494	2,12,287	2,26,892	2,09,905	2,57,129	2,33,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010
Central Provinces and Berar	6,83,274	6,47,614	7,16,469	7,78,802	8,62,864	8,79,458	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860
Coorg	76,951	65,690	74,088	72,629	80,175	72,420	65,818	86,860	73,090	86,890	86,140	85,840	71,630
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	16,316	16,469	20,744	18,897	15,676	12,701	12,720	13,986	15,000	15,900	14,900	15,730	22,010
Baluchistan	13,266	15,799	17,836	17,753	15,994	17,962	29,450	30,497	55,620	63,730	40,910	41,770	29,770
Andamans	22,760	37,035	25,769	62,679	57,295	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600
Imperial Forest College	22,568	24,239	30,831	33,129	32,961	29,646	35,191	44,347	50,400	65,530	65,980	67,950	67,380
Forest Surveys (Imperial)	19,823	19,180	28,348	32,868	22,164	21,188	24,324	26,882	22,160	27,900	29,840	29,950	31,970
Total	43,51,282	42,97,118	43,49,560	43,75,149	52,15,005	50,80,590	49,46,325	54,38,471	56,70,870	59,05,990	59,19,020	59,28,610	65,41,690
Madras	8,96,505	9,37,972	11,53,122	11,29,212	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,300
Bombay	17,78,723	18,39,461	19,52,910	19,44,005	16,93,962	17,70,691	18,69,887	19,31,457	19,04,970	20,71,940	20,67,920	19,58,390	19,69,160
Grand Total	70,26,510	70,74,551	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150

(III) SUR

Imperial*	−89,732	−73,537	−82,113	−73,779	−82,182	−76,552	−79,044	−59,100	−1,02,030	−78,160	−79,970	−77,720	−74,860
Bengal	1,59,237	2,27,033	2,30,853	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,98,280	4,52,640	6,80,810
United Provinces	5,52,218	4,86,976	6,53,976	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	5,38,480
Punjab	1,91,282	1,74,936	4,10,767	1,09,024	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420
Burma	4,58,749	8,72,907	10,28,723	13,61,927	21,72,160	33,34,142	29,33,179	24,86,434	38,55,000	39,22,600	35,18,190	37,62,230	42,50,130
Eastern Bengal and Assam	−17,285	−14,838	−276	40,420	93,977	1,22,369	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430
Central Provinces and Berar	6,42,074	7,09,762	5,67,853	7,21,610	7,25,518	7,17,264	7,96,095	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430	98,280
Coorg	36,282	23,696	25,203	54,399	56,008	20,333	69,743	96,037	1,07,590	86,900	66,910	49,410	21,370
North-West Frontier Province	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer	−5,860	−6,772	−9,470	−4,604	−2,102	−1,109	2,546	5,813	−110	−1,280	−2,060	−90	9,640
Baluchistan	−7,177	−837	−3,755	−3,690	−10,326	−4,065	−13,726	−9,888	−36,590	−43,000	−24,610	−26,840	−14,310
Andamans	−547	−13,091	6,101	41,383	48,780	67,220	28,274	92,429	1,29,280	1,97,240	−8,250	30,100	45,770
Imperial Forest College	−22,495	−23,966	−30,416	−32,352	−32,512	−28,409	−34,007	−42,559	−48,420	−63,540	−63,190	−63,640	−64,530
Forest Surveys (Imperial)	−19,589	−18,978	−28,107	−32,823	−21,849	−20,968	−22,220	−26,625	−21,640	−27,660	−29,760	−29,440	−31,570
Total	18,97,130	23,43,291	27,69,339	28,65,612	43,18,250	55,27,659	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78,780
Madras	2,70,411	2,60,678	93,789	2,45,703	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960	7,69,030
Bombay	9,96,119	15,26,825	10,79,736	10,88,579	11,56,728	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550
Grand Total	31,63,660	41,30,794	39,42,864	41,99,842	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360

* Includes pay of Inspector General of Forests, certain home

DIX XXII

33 to 39.]

India during the 25 (financial) years from 1884-85 to 1908-09.

NUE.

1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	Provinces.
R 19,130	R 17,540	R 6,090	R 2,463	R 3,484	R 3,659	R 7,455	R 3,768	R 7,255	R ...	R 7,666	R 8,189	Imperial.*
11,89,280	9,72,310	11,38,910	12,33,339	12,92,237	12,56,247	10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11,84,845	Bengal.
13,86,670	15,68,040	16,14,740	15,65,463	17,15,508	20,25,324	22,80,446	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	United Provinces.
10,68,470	14,74,430	14,00,770	13,50,842	14,47,558	15,86,408	17,17,797	18,74,413	17,81,653	16,05,284	14,57,449	12,88,792	Punjab.
72,15,260	83,50,890	78,12,050	80,54,444	58,73,938	67,39,053	82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	91,92,032	Burma.
3,84,820	3,98,180	5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	Eastern Bengal and Assam.
11,80,400	14,34,940	12,97,490	12,65,614	15,79,116	16,84,428	19,98,032	20,13,459	24,49,131	24,01,159	22,90,128	20,78,162	Central Provs. and Berar.
1,30,910	1,55,070	1,62,410	1,37,596	1,70,242	1,90,730	24,031	1,93,087	2,45,419	2,35,909	2,74,756	2,24,330	Coorg.
...	...	...	...	13,012	1,01,123	1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	N.-W. Frontier Province.
15,540	14,420	10,270	10,646	6,865	9,736	13,884	17,297	15,002	18,335	29,864	27,615	Ajmer.
15,040	14,920	17,060	16,956	14,712	19,336	18,368	22,555	21,481	21,195	24,829	23,305	Baluchistan.
4,33,710	2,29,460	2,60,600	2,77,886	2,66,903	3,26,035	4,32,381	6,20,796	5,82,511	6,07,027	2,91,822	2,02,018	Andamans.
2,890	2,360	3,210	3,697	3,545	3,252	3,033	3,557	3,080	4,579	6,137	4,680	Imperial Forest College.
80	290	...	327	473	3,034	431	...	...	...	...	...	Forest Surveys (Imperial).
1,30,42,340	1,46,32,850	1,42,92,120	1,44,68,794	1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	Total.
21,36,490	21,10,520	23,02,290	23,40,170	25,43,430	26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	38,90,919	Madras.
26,16,660	22,95,150	24,15,200	29,61,529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,993	34,22,481	36,46,177	35,87,356	Bombay.
1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,774	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	Grand Total.

DITURE.

84,300	85,460	96,550	83,578	79,539	85,017	89,345	83,058	83,767	95,472	1,00,204	1,04,183	Imperial.*
6,53,440	4,86,320	5,45,210	5,70,806	6,57,131	6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	Bengal.
9,17,850	9,72,030	9,42,380	9,63,439	10,08,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,94,013	12,22,436	United Provinces.
7,71,940	8,55,340	12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	12,63,664	11,44,403	11,76,696	8,51,627	Punjab.
21,96,610	24,26,190	24,47,440	26,54,717	26,46,457	28,90,263	33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	Burma.
2,88,830	3,05,360	3,57,140	3,47,972	3,29,112	3,27,498	4,25,484	5,03,656	5,93,910	7,07,860	8,00,373	8,91,349	Eastern Bengal and Assam.
11,65,490	11,09,400	12,75,820	11,65,866	12,00,904	12,57,288	12,80,966	13,20,615	13,07,153	13,42,878	15,83,407	17,53,307	Central Provs. and Berar.
87,020	80,100	74,220	70,905	82,333	89,437	92,191	83,820	95,748	1,02,855	1,04,819	99,595	Coorg.
...	...	...	...	19,510	54,086	60,603	74,958	95,258	93,650	88,400	81,413	N.-W. Frontier Province.
14,670	16,300	15,350	16,782	15,927	16,377	16,680	15,641	17,131	16,715	18,188	19,916	Ajmer.
27,330	27,760	28,680	29,254	24,480	23,240	21,697	24,672	25,743	26,322	31,258	36,586	Baluchistan.
2,47,340	1,38,400	1,40,940	1,40,137	2,04,667	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	Andamans.
60,920	63,370	73,550	71,238	76,290	66,338	59,339	61,424	80,669	1,37,486	1,58,038	1,83,191	Imperial Forest College.
33,950	33,970	33,980	33,991	33,730	33,985	33,935	28,229	30,044	30,389	27,060	39,128	Forest Surveys (Imperial).
65,49,690	66,00,000	72,42,720	70,36,028	73,17,154	77,37,338	86,40,126	90,77,954	98,65,926	95,92,956	97,76,649	97,64,900	Total.
15,72,850	15,94,670	16,53,530	17,15,431	17,09,554	18,35,552	17,50,930	19,86,098	22,66,602	24,80,660	27,80,857	29,17,261	Madras.
20,73,190	18,39,250	21,28,430	24,08,581	17,19,680	16,76,441	17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	Bombay.
1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12 933	1,47,26,034	Grand Total.

PLUS.

−65,170	−67,920	−90,460	−81,115	−76,056	−81,358	−81,890	−79,290	−76,512	−95,472	−92,538	−95,994	Imperial.*
5,35,840	4,85,990	5,93,700	6,62,533	6,35,106	6,18,283	3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	Bengal.
4,68,820	5,96,090	6,72,360	6,02,024	7,06,769	10,11,326	11,99,008	10,05,735	10,28,246	11,96,013	12,15,732	9,52,970	United Provinces.
2,96,530	5,19,010	1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	4,37,165	Punjab.
50,18,650	59,24,700	53,64,610	53,99,727	32,27,481	38,48,790	49,16,131	55,12,832	63,91,806	61,52,766	51,12,457	54,74,785	Burma.
95,990	92,820	2,10,960	2,01,549	1,83,851	2,52,701	2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	Eastern Bengal and Assam.
14,910	3,25,540	21,670	99,748	3,78,212	4,27,140	7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	Central Provs. and Berar.
43,890	74,970	88,190	66,691	87,909	1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	Coorg.
...	...	...	...	6,498	47,038	41,230	16,033	53,271	89,564	1,50,090	41,369	N.-W. Frontier Province.
870	−1,880	−5,080	−6,136	−9,062	−6,641	−2,796	1,656	−2,129	−1,620	11,676	7,699	Ajmer.
−12,290	−12,840	−11,610	−12,298	−9,768	−3,904	−3,334	−2,117	−4,262	−5,127	−6,429	−13,231	Baluchistan.
1,86,370	91,060	1,19,660	1,37,749	62,236	44,333	1,66,260	2,78,365	2,46,526	3,11,891	62,555	21,077	Andamans.
−58,030	−61,010	−70,340	−67,541	−72,746	−63,086	−56,301	−57,867	−77,589	−1,32,907	−1,51,901	−1,78,511	Imperial Forest College.
−33,730	−33,680	−33,560	−33,664	−33,257	−30,951	−33,504	−28,229	−30,044	−30,389	−27,060	−39,128	Forest Surveys (Imperial).
64,92,650	80,32,850	70,49,400	74,32,766	55,83,402	67,91,227	81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	Total.
5,63,640	5,15,850	6,48,760	6,24,739	8,23,876	7,78,267	9,06,797	8,43,118	7,01,092	8,10,009	11,12,973	9,73,658	Madras.
5,43,470	4,55,900	2,86,770	5,52,948	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	15,43,483	Bombay.
75,99,760	90,04,600	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	Grand Total.

charges, and undistributable and petty local items and revenue and charges on account of Indore Agency.

APPENDIX XXIV.

[*Vide* paragraph 32.]

Exports of Forest Produce.

Articles of Forest Produce.	Quantity in tons of 20 cwt. In the case of teak cubic tons.		Valuation at Port of Shipment in 1908-09.	
	Average of 5 years 1903-04 to 1907-08.	In 1908-09.	Total.	Per ton.
1	2	3	4	5
			₹	₹
Caoutchouc, raw	191	98	3,19,039	3,255
Lac — Button	2,032	1,571	23,33,005	1,485
Lac — Shell	10,732	16,148	2,46,51,307	1,527
Lac — Stick, seed and other kinds	1,058	1,322	9,62,650	728
Sandal, Ebony and other ornamental woods	(a)	(a)	10,72,105	
Cutch and gambier	4,198	3,142	9,26,042	295
Myrabolams	62,791	73,342	57,20,302	78
Teak	51,467	27,220	40,19,857	148
Cardamoms	106	116	3,04,163	2,622
Total in 1908-09	...	...	4,03,08,470	...
„ 1907-08	...	...	5,63,69,672	...

(a) Quantity (whether by weight or measurement) not recorded.

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REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

FOR THE YEAR

1909-10

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

BY

F. BEADON BRYANT,

INSPECTOR-GENERAL OF FORESTS TO THE GOVERNMENT OF INDIA.

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REVIEW

OF

FOREST ADMINISTRATION IN BRITISH INDIA

FOR THE YEAR

1909-10.

CHAPTER I.

CONSTITUTION OF STATE FORESTS.

1.—Alteration in Area.

[*Vide Appendix I.*]

1. The area under the control of the Forest Department increased during the year by 3,777 square miles to a total of 245,551 square miles, or 24·9 per cent of the total area of British India.

2. The areas of the different classes of forests at the end of the years 1908-09 and 1909-10 are compared in the following statements :—

Class of forests.	1908-09	1909-10	Difference.
	Sq. Miles.	Sq. Miles.	Sq. Miles.
Reserved forests	94,561	96,474	+1,913
Protected „	8,835	8,814	—21
Unclassed State forests and Public forest lands ..	138,378	140,263	+1,885
Total ..	241,774	245,551	+3,777

3. The most important changes in the area of each class of State forests were as follows :—

(i) Reserved Forests.

Burma.—1,963 square miles of new reserves were finally notified, while survey and recomputation of areas and other minor changes resulted in a net increase of 157 square miles. Of the new reserves 1,229 square miles were constituted, mainly with the object of protecting the head-waters of streams and of controlling the storage and regulating the water-supply.

Eastern Bengal and Assam.—Fresh reservations amounted to 62 square miles; a more accurate computation of areas resulted in an increase of 104 square miles.

Central Provinces.—There was a net decrease of 482 square miles chiefly due to the transfer to Madras of the Cherla Range of the South Chanda Division in the Southern Circle.

Madras.—There was a nominal increase of 75 square miles. The reserves transferred from the Central Provinces cannot be included in the total of such forests in Madras until they have been reserved afresh under the Madras Forest Act.

(ii) Unclassed Forests.

Punjab.—A reduction of 248 square miles is due chiefly to the exclusion of village forests, which have never really been under the control of the Forest Department, and to further transfers to other Departments.

Burma.—A net increase of 2,139 square miles is due mainly to recomputation of areas based on surveys.

2.—Forest Settlements.

[*Vide Appendix II*].

4. The area finally settled during the year was 2,096 square miles as compared with 1,230 square miles and 1,798 square miles, respectively, in the two previous years. Except in Burma (1,963 square miles) the provincial areas were insignificant. The area in respect of which settlement operations were commenced was 867 square miles, including 787 square miles in Burma, as compared with 824 square miles in the previous year. The total area undergoing settlement at the close of the year was 4,394 square miles, or 1,958 square miles less than at the end of 1908-09. The cost of settlement charged in Forest accounts amounted to Rs. 1,26,572, or Rs. 83,663 more than in the previous year. Burma accounts for Rs. 19,038 of this total and Madras for Rs. 1,05,650. No explanation of the large expenditure in Madras is traceable in the reports.

3.—Demarcation.

(*Vide Appendix III*].

5. The total length of boundaries increased during the year by 3,794 miles to 170,063 miles, of which 18,063 miles are natural boundaries not requiring artificial marks. The principal additions were 3,079 miles in Burma and 608 miles in Bombay. The length of new boundaries demarcated was 2,572 miles (155 miles less than in the previous year). An increase of 324 miles occurred in Madras, while Burma and Bombay show reductions of 131 miles and 466 miles, respectively. Of the 6,033 miles of boundaries requiring artificial marks but not yet demarcated, 1,099 miles are in Burma, 1,020 miles in Madras and 3,470 miles, in Bombay. The total length of boundaries actually demarcated at the end of the year was 145,967 miles. Existing boundaries were repaired to the extent of 64,885 miles, or 3,650 miles more than in the previous year ; 78,490 miles were not repaired. The expenditure on new work amounted to Rs. 35,260 and on repairs to Rs. 92,129, the average cost being Rs. 13·7 per mile and Rs. 1·4 per mile, respectively, as compared with Rs. 17 and Rs. 1·6 in the previous year. The most notable reduction in the cost of new work occurred in Madras, *viz.*, from Rs. 49·9 to Rs. 23·8 per mile.

4.—Forest Surveys.

[*Vide Appendix IV*].

6. The forest survey operations of the year were carried out, in almost every case, by the particular topographical parties in whose spheres of operations the forests lay. The surveys were for the most part on the 2-inch scale, but some of the areas were done on the 1-inch scale ; and boundary surveys on the 4-inch scale were carried over a considerable area. The revision of certain areas, previously surveyed on the 4-inch scale by the old Forest Survey Branch, was also effected.

7. The following forest areas were topographically surveyed during the year :—

Presidency.	1″=1 mile.	2″=1 mile.	4″=1 mile.	Total.	Remarks.
	Square miles.	Square miles.	Linear miles.		
Bengal	120	988 (*a*)	420 (*c*)	1,528	(*a*) Excludes 167 square miles previously surveyed on the 4-inch scale by the old Forest Survey Branch.
Madras	..	147 (*b*)	..	147	
Bomyba	..	235	316 (*c*)	551	(*b*) Excludes 131 square miles of re-survey.
					(*c*) Linear miles of boundary survey.
Total ..	120	1,370	736 (*c*)	2,226	

The entire cost of the above surveys was borne by the Survey of India.

8. The details of survey carried out in the various provinces are given in the following paragraphs :—

Punjab.—The forest areas surveyed by No. 4 (late 18) Party on the 2-inch scale, fell chiefly in the Salt and Khushab ranges of the Shahpur District with some small areas in the Mianwali and Attock districts of the Shahpur Forest Division, of which the boundaries of most of those falling in the Salt Range were previously surveyed by the old Forest Survey Branch on the 4-inch scale. The total area of forests thus surveyed in the Shahpur district amounted to 343 square miles and, in the Mianwali and Attock districts, to about 4 square miles, or a total of about 347 square miles of the Shahpur Forest Division. In addition to these an area of about 34 square miles were surveyed in the Jhelum Forest Division (Attock District) on the 2-inch scale and a few forests lying in the *Thal* desert on the 1-inch scale.

Burma.—No forest surveys were undertaken in Burma during the year under report.

Eastern Bengal and Assam.—The survey of the Katakhal and Sonai reserves in the Cachar Forest Division, which was commenced last year, was completed during the year under report on the 2-inch scale by No. 12 (late 20) Party ; and the Inner Line and Barail reserves have only been mapped upto the limits of the topographical programme of the Party. The officer in charge reports that the large area of dense bamboo and cane jungle, the impenetrable nature of the undergrowth and extensive swamps met with in parts, made the survey of the Cachar forests one of the most trying and difficult pieces of work that have so far been experienced by his Party either in Burma or Assam. The area thus surveyed in the Cachar Division amounted to 293 square miles. The Lungi and Singla reserves in the Sylhet Forest Division, comprising an area of 94 square miles, came under survey and were completed.

Central Provinces (Berar Circle).—In the course of the topographical survey of Berar, No. 6 (late 2) Party surveyed, on the 2-inch scale, all the A, B, and C class forests falling in the area under survey in the Yeotmal District and their boundaries were rigorously traversed by theodolite and plotted on the 4-inch scale. The area surveyed on the 2-inch scale amounted to 78 square miles and the boundary traversing to 229 linear miles. In addition to these about 191 linear miles of the boundaries of the A and B class forests lying in the area proposed for detailed survey next working season, were traversed in advance. C class forests were not specially surveyed before and considerable difficulties were experienced in identifying their boundaries as the field boundary marks (worlies and gotas) were in many places found missing. In two cases it was absolutely impossible to survey the boundary, as no marks of any kind existed on the ground. Steps have, however, been taken to inspect and renew the boundary marks if found missing and it is hoped that in the ensuing year there will be no further difficulties over this question.

Madras Presidency.—Forest surveys on the 2-inch scale were carried on during the year by Nos. 7 and 8 (late 3 and 19) Parties in the following divisions :—

In the Nilgiris, 122 reserved forests, of the total area of 59 square miles, were surveyed. Of these, 37 forests were partially done last year. In addition to this, many corrections to the demarcated boundaries were entered on last year's plane-table sections. The survey of the reserved forests in the Nilgiris is now complete. In Central Coimbatore, the Attapadi Forest reserve, which has recently been transferred to this division from South Malabar and the Chenat Nair, Pulampara and Varalapadi forest reserves, comprising an area of 48 square miles, were surveyed. In the South Coimbatore the greater part of the Anamalai forest reserve falling in sheet 58 B-15 was re-surveyed on the 2-inch scale, as the old 4-inch maps were found to be extremely inaccurate. The area thus surveyed amounted to 131 square miles. In South Canara, Sampage, Todikana, Kiribagh, Nalkuru and Devachalla forest reserves, of the total area of 40 square miles, were surveyed. The only forest reserves, which had not been previously traversed by theodolite (with the exception of the Nilgiris reserves), was the Attapadi forest, Block No. VI ; it was intended to traverse this, but as the boundary was not cleared in time for the traverse to be carried out, this was abandoned. The total area surveyed in the Madras Presidency amounted to 278 square miles.

Bombay Presidency.—The survey of the Satpura reserve on the 2-inch scale which was commenced in the year 1905-06, was completed this year by No. 6 Party and about 121 square miles were surveyed. In addition to this, about 114 square miles of forests in the Bhusawal, Jamner and Jalgaon talukas of the East Khandesh District were surveyed on the same scale. Boundary surveys of all these forests, amounting to 316 linear miles were made on the 4-inch scale.

Coorg.—In Coorg, 20 reserved forests, of the total area of 309 square miles, were surveyed by No. 7 (late 3) Party on the 2-inch scale.

9. The number of maps issued to Forest and other officials and to the public during the year, was 9,662, of which 2,256 were coloured maps. The number issued last year was 7,689. But though the number issued during the year exceeded

that of the previous year, the amount realized by their sale was considerably less. The amount thus realized was Rs. 1,555 as against Rs. 3,312 in 1908-09. Of this amount, Rs. 467 was adjusted by book debit and Rs. 1,088 accrued from sales to private individuals and trading companies.

Besides the headquarters charges, a sum of Rs. 3,345 was debited to the Forest Department on account of mapping and publishing charges and the cost of additional details in the survey of the Mosit Reserve.

The following is a brief summary of the mapping executed during the year:—

Of the standard sheets of Forest Surveys, 46 were published, 39 were in the press and 148 in various stages of progress. Of the working plan and other special maps, 19 were published, 8 were in the press and 13 in hand. Two general maps of India, on the 48-mile scale which were put in hand last year for the Quinquennial Review of the Inspector General of Forests for 1904-09, were completed and sent to press and six maps of India on the 96-mile scale, shewing rainfall and the geographical distribution of the principal Indian timber growth, were published. These maps are of considerable value for educational purposes. Provincial Forest maps of Bengal and Punjab on the 32-mile and 16-mile scales, respectively, and the divisional maps of Chindwara, Narsinghpur, and Singhbhum and Chaibassa on $\frac{1}{4}$-inch scale, were published; those of Balaghat and Jubbulpore were in the press at the close of the year and the maps of Nimar and Mandla were commenced. The district map of Tinnevelly, on the $\frac{1}{4}$-inch scale, was sent to press and the fair drawing of those of South Canara, Madura and Coimbatore, was completed and that of the Cuddapah and Salem maps was in progress. Block impressions of 22 of the new 2-inch standard sheets were received during the year from the Superintendents of Eastern Circle and Map Publication, Survey of India, for the insertion thereon, of area statements, headings, footnotes, references and additional names and for publication as special forest editions. These maps are now being dealt with. The map of the Mosit Reserve in the Bhamo Division, which was specially surveyed on the 2-inch scale for the Forest Department, was sent to press. Out of the 36 standard sheets on the 2-inch scale, received during the previous years and left unpublished, 4 were completed and sent to press and 6 were nearing completion at the close of the year; of the remainder, forest editions of some will not be required owing to their having been previously surveyed and published as forest maps and others will, it is understood, be drawn in the circle offices. The preparation of a second edition of the maps, consisting of 36 sheets, of the Bahraich district on the 4-inch scale, showing the necessary working-plan details, was put in hand and 15 sheets sent to press, of which 8 were published. A similar edition of the 4-inch maps of the Gorakhpur district, of 22 sheets, shewing all the latest corrections, was under preparation and 8 sheets were sent to press. Twenty 4-inch maps of the Shahpur Forest Division, and 2 sheets of the Dungagali and Tandiani Ranges, Hazara Division, were published and 5 sheets of the latter were in the press. The number of maps, and field sections received for storage from the Map Record and Issue Office, Calcutta, and other offices, was 3,035.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

1.—Regulation of Management.

Working Plans.

[*Vide Appendix V*].

10. In the provinces other than Madras and Bombay, working-plans for areas amounting to 803 square miles only, including a revised plan for 334 square miles, were sanctioned. This is 2,359 square miles less than in the previous year, so that the progress made is not altogether satisfactory. There was, however, a considerable increase in the area for which working-plans were under preparation at the close of the year, which amounted to 7,145 square miles as compared with 3,635 square miles at the close of 1908-09. Of the 7,145 square miles, 2,364 square miles represent areas already under systematic management for which revised plans are being compiled; the remainder, 4,781 square miles, represents areas for which no working-plans have previously been prepared.

In Madras, working-plans for 847 square miles were sanctioned and new plans for 2,869 square miles were under compilation.

In Bombay the only working-plan sanctioned was for an area of 1 square mile, while new plans for 593 square miles were under preparation.

11. The following statement shows the total area under working-plans at the commencement and close of the year, excluding 14 square miles of reserved forests in Bengal which are not under the control of the Forest Department.

——	At commencement of the year.	Added during the year.	Total.
Bengal	34,728*	469	35,197
Madras	7,046*	847	7,893
Bombay	6,330*	1	6,331
Total in 1909-10 ..	48,104*	1,317	49,421
Total in 1908-09 ..	44,848*	3,453	48,301

* Revised figures.

At the close of the year working-plans were under compilation for a total area of 8,243 square miles. The forest area, for which working plans will ultimately be required but for which they have not yet been undertaken, is estimated to be 161,679 square miles, while there is a further area of 26,208 square miles for which it is at present thought that no working-plans will be necessary.

2.—Communications and Buildings.

[*Vide Appendix VI.*]

(*a*). *Roads and Bridges.*

12. The total expenditure on communications was Rs. 4,39,156, a decrease of Rs. 1,01,024 as compared with the year 1908-09. Both new work and repairs contributed to the decrease, the respective expenditure being Rs. 2,45,800 and Rs. 1,93,356 as compared with Rs. 3,23,560 and Rs. 2,16,620 in the previous year. In Bengal the total expenditure showed a slight increase, but lack of a qualified super-

vising staff again caused a reduction in the cart-road mileage it was found possible to construct. In Burma a reduction amounting to Rs. 53,527 in the expenditure on new work was due, partly to materials required for the work of the year under review having been purchased in the previous year, partly to delay necessitating postponing payments until the succeeding year, and partly to a general reduction in the amount of work undertaken. In the Central Provinces a general all-round reduction amounting to Rs. 26,399 was caused, partly by curtailment of the budget but also by lapses and slow progress. The North-West Frontier Province shows a satisfactory increase in the amount of work done, the expenditure being more than double that of the previous year. In Bombay the curtailment of the budget and the fact that most of the funds available were spent on buildings caused a reduction in expenditure amounting to Rs. 6,741 on new work and Rs. 8,853 on repairs.

(*b*). *Buildings.*

13. The total expenditure on buildings, including repairs amounted to Rs. 7,29,516, or Rs. 75,959 more than in 1908-09. The cost of new work increased by Rs. 92,019, while there was a reduction of Rs. 16,060 on account of repairs. In Bengal new work cost Rs. 19,042 more than in the previous year, the principal items contributing to the increase being Rs. 7,779 on account of school buildings at Kurseong. In the Punjab, Rs. 15,634 were expended on the construction of subordinates' quarters as compared with Rs. 4,788 in 1908-09; there was, however, a small decrease in the total cost of new work, expenditure on headquarters and rest-houses having been correspondingly reduced. In Burma an increase of Rs. 44,963 was due to the construction of several new headquarters houses and offices. An increase of Rs. 22,765 in Eastern Bengal and Assam is accounted for by the purchase of a residence for the second Conservator recently sanctioned, at a cost of Rs. 25,000. An increase of Rs. 26,232 in Madras was due to general development. The curtailment of the budget explains a decrease of Rs. 27,149 in Bombay. The differences in other provinces were comparatively small and call for no comment. The same remark applies generally to repairs in all provinces.

(*c*). *Miscellaneous Works.*

14. The expenditure under this head amounted to Rs. 1,31,296, being Rs. 44,691 less than in 1908-09. The work includes tanks, wells, bunds in torrent beds and protective works generally, the clearing of compounds and camping grounds, etc. The only variation of importance occurred in the Central Provinces where the amount expended was Rs. 41,106, as compared with Rs. 87,579 in 1908-09. The decrease was due partly to the fact that in 1908-09 it was necessary to provide work owing to the partial failure of the crops, but also to a considerable extent because the tank projects prepared by the Famine Survey have proved unreliable and new projects must be prepared and passed by Irrigation Officers before money can be profitably spent on these works.

3.—Protection of Forests.

(*a*) *General Protection.*

[*Vide Appendix VII*].

15. The number of breaches of the forest laws disposed of during the year was 62,822 as compared with 61,954 in the previous year. Of the total, 8,408 were decided by the Courts and 54,414 were compounded, the corresponding figures for 1908-09 being 9,491 and 52,471, respectively. There was consequently a decrease of about one thousand cases dealt with by the Courts and an increase of about two thousand cases compounded. Convictions were obtained in 85·6 per cent. of the total number of cases decided by the Courts, the percentage being identical with that for 1908-09.

16. The forest offences reported during the year under review, including undetected cases and those subsequently written off, are compared with those of the

previous year and the average of the previous three years in the following statement :—

—	Average 1906-07 to 1908-09.	1908-09.	1909-10.
Injury by fire	4,144	3,615	4,526
Unauthorised felling or appropriation of forest produce ..	35,334	37,238	36,529
Unauthorised grazing	25,333	26,173	27,490
Other offences	4,672	4,274	3,597
Total ..	69,483	71,300	72,142

There were 7,006 undetected cases, or 46 less than in the previous year. Cases of injury to the forests by fire increased by 911 to a total of 4,526 of which 3,683 remained undetected. Except in the Central Provinces, Madras and Bombay, where the fire season was an unfavourable one and which show increase of 334, 343 and 381 cases, respectively, the changes were unimportant. As regards the unauthorised felling and appropriation of forest produce, a reduction of 1,074 cases occurred in Bombay, the total number of offences of this class being 709 less than in the previous year. Unauthorised grazing continues to be prevalent, the cases reported during the year being 1,317 more than those of 1908-09 and 2,157 in excess of the average of the previous three years, the principal provincial variations were increases of 658 and 569 cases in the Punjab and in the Central Provinces, respectively, and a decrease of 377 in Madras.

As regards the total number of offences, the Punjab and the Central Provinces show increases of 627 and 1,080 cases, respectively, and Bombay a reduction of 965 cases ; in the other provinces the changes were comparatively small.

(b). Protection from Fire.

[Vide Appendix VIII].

17. Fire protection was attempted over a total area of 48,510 square miles as compared with 46,432 square miles in the previous year. The area attempted represents 50·3 per cent of the total area of reserves as given in Appendix I, and the percentage of success was 94·3 as compared with 95·8 in 1908-09. The following statement gives the statistics for the various provinces :—

Province.	Area in square miles.		Proportion of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.	
	Attempted.	Protected.		Average of past five years to 1908-09.	1909-10.
Bengal	1,898	1,846	44·8	2·1	2·7
United Provinces ..	3,179	3,100	77·5	3·7	2·5
Punjab	1,051	1,025	47·5	1·8	2·5
Burma	7,727	7,662	30·1	6·1	0·8
Eastern Bengal and Assam.	(a) 2,435	(a) 2,356	37·6	3·1	3·2
Central Provinces ..	11,795	10,994	55·0	3·5	6·8
Coorg	208	208	40·0	2·5	0·2
North-West Frontier Province.	85	83	36·0	8·8	2·4
Ajmer	141	140	99·3	0·7	0·2
Madras	(a) 10,177	(a) 9,255	54·2	5·4	9·1
Bombay	9,814	9,099	80·4	9·5	7·3
Total 1909-10 ..	48,510	45,768	50·3	5·6	5·7
Total 1908-09 ..	46,432	44,497	49·0	6·3	4·2

(a) Includes partially protected areas.

The increase in the area attempted is more apparent than real as it is mainly due to the correction of previous returns, though there were also some extensions. An increase of 2,672 square miles in Madras is partly due to the inclusion of areas under partial protection previously omitted, while a decrease of 829 square miles in Eastern Bengal and Assam is due entirely to the exclusion from form 58 of areas previously shown as partially protected but which are practically non-inflammable. In Bombay a reduction of 334 square miles is partly due to the abandonment of fire-lines in portions of the Belgaum Division on the grounds that incendiarism is so prevalent that fire-lines are of little use, and partly to correction of the previous returns; the area statistics for Bombay appear to be rough estimates only.

In Madras, the Central Provinces, Sind and the Plains Division of Bengal the season is reported to have been an unfavourable, one for fire-protection and the percentage of failure in these localities was considerably greater than in 1908-09. It was probably the case that the season was unfavourable, but when fires are more numerous or extensive than usual there is a natural tendency to attribute the increase to an unfavourable season. As the Chief Commissioner of the Central Provinces points out in his resolution on the Forest Administration Report for the year under review, there is evidence that the staff is not always as careful as it should be, when burning fire lines, to prevent the fire from spreading. This evidence consists of the large areas burnt by fires which originate during departmental-fire-conservancy operations or which cross the external fire-traces (*vide* Appendix VIII). Improvements in the fire-conservancy arrangements appear to be necessary in localities where such fires occur frequently.

(*c*). *Protection from Cattle.*

[*Vide Appendices IX and X*].

18. The grazing statistics given in the administration reports for Bengal, Eastern Bengal and Assam and Bombay include figures for 956 square miles, 6 square miles and 2,112 square miles, respectively, not under control of the Forest Department. The total area concerned is, therefore, 248,625 square miles. Of this area 43,205 square miles were closed to all animals and an additional 20,015 square miles to browsers only during the whole year, or 17·4 per cent of the total area to all animals and 25·4 per cent to browsers. The corresponding areas in the previous year were 41,188 square miles and 20,902 square miles, respectively. In Madras additional restrictions were imposed as regards goats, and these animals were admitted to 789 square miles only as compared with 983 miles in the previous year. The areas closed for grazing during a portion of the year only were 6,693 square miles to all animals and an additional 195 square miles to browsers. Except that goats alone were excluded from 15,356 square miles in Madras, the area open to all animals throughout the year was 178,517 square miles, or 71·8 per cent of the total.

Exclusive of cattle grazed in the unclassed forests of Burma and the Andamans, for which no figures are available, the cattle admitted to graze numbered nearly 13½ millions, or about 1,20,000 less than in the previous year. The total includes more than 4¾ million browsers, such as goats, sheep and camels.

19. The number of cattle reported as impounded during the year was 436,522, or 27,533 less than in 1908-09. The figures for Bombay show a decrease of 28,199, which is largely due to the transfer of grazing areas to revenue control. In other provinces the changes in the figures are unimportant.

(*d*) *Protection against injury from natural causes.*

20. The principal natural causes of damage to forest are frost, drought, wind, insects, wild animals, fungi, climbers and parasitic plants. Generally speaking, the year under review was a favourable one so far as this class of injury is concerned. The principal feature was the improvement in the condition of the Sal forests of the United Provinces, which is referred to more in detail below. There was little injury by frost in most provinces, but a severe cyclone in Bengal caused considerable damage, especially in the Sunderbans Division. The most serious pests are the "spike" disease in Sandal, of which the cause is still unknown and for which no remedy has yet been discovered, and the fungus, *Trametes pini* which has done so much damage to blue pine in the Simla Hills. The former

appears to have obtained a footing in Bombay, while the latter is also very prevalent in Bashahr and has been found attacking the deodar as well as the blue pine. Climbers do a great deal of damage except in coniferous forests; their eradication is, however, to a great extent a question of labour and money and much attention is being devoted to this object. The following is a brief summary of the most important items in the provincial reports:—

Bengal.—The usual damage by wild animals is reported, but damage by wild elephants in Angul is said to have decreased considerably as a result of the Kheddah Operations. Injury by frost was slight but a cyclone of unprecedented violence did an enormous amount of damage in the Sunderbans Division.

The United Provinces.—The dying-off of *Sal,* which has been so noticeable for some years, and which was the result of a succession of dry seasons, was completely checked by the plentiful rainfall during the monsoon of 1909. Not only so, but many trees which appeared to be in a hopeless condition recovered completely. Nevertheless, the damage done has been great and changes necessitated in the working-plans will lead to a reduced revenue for many years after the dead trees have been removed. Damage by frost was slight, but some more or less serious cases of damage by animals, insects and fungi are reported.

The Punjab.—In Simla over 16,000 blue pine, attacked by *Tramates pini*, were felled and removed, their branch wood being destroyed. Nearly 10,000 of the removed trees were given away, the rest being burnt. The same disease was found to be very prevalent in parts of the Bashahr Division and it is being studied there. Pending further investigations, however, the adoption of the somewhat heroic measures taken in the Simla Division has been deferred. Two deodar trees have been found attacked by the same fungus and the position is consequently a serious one. No definite progress was made towards the identification of the fungi attacking the deodar in Kulu, and it is a matter of much regret that no Mycologist is available to investigate such matters. As a result of the measures taken in the Simla Catchment Area, no increase in the insect attack has taken place, but the traps cannot safely be dispensed with for some years.

Burma.—The reports contain little information regarding damage by natural causes The teak defoliators *Hyblo a peura* and *Pyrausta machœralis* were noticed as usual; the damage done appears, however, to have been slight. Floods caused some damage, the amount not being serious. Climber cutting was done extensively but the area operated over is not invariably given.

Eastern Bengal and Assam.—Damage by insects and fungi appears to be unimportant and to require no remedial measures at present. Except that climbers are destructive, little damage can be attributed to natural causes. Climbers were extensively cut.

The Central Provinces.—The only damage of importance reported is that due to the ravages of the longicorn beetle *Cœlosterna spinata* in the Bhongaon Babul *Ban* in Berar. Some 600 acres of young babul plantations are involved and measures for dealing with the attack have been decided on.

Coorg.—Some 27,000 Sandal trees affected by the spike disease were uprooted as compared with 23,100 in 1908-09, while considerable activity was shown in attacking the Zizyphus which suffers in company with sandal and is always associated with the latter in its diseased form. There was again no increase in the area affected by the disease but, on the other hand, there was no abatement in its virulence in the area affected.

The scheme for the eradication of Lantana is held in abeyance pending the personal inspection of and recommendations by the Inspector General of Forests.

The North-West Frontier Province.—At high elevations snow caused considerably more than the usual amount of damage.

Baluchistan.—The winter being a severe one more damage than usual was done by frost.

Madras.—The reports differ little from those of previous years. The most serious pests from which the forests suffered were the spike disease in sandal-wood forests in North Coimbatore and Kollegal, the fungus (*Trichosporum vesiculosom*) in Ganjam and Lower Godavari, and caterpillars and other insects. The removal of the sandal trees attacked by "spike" was continued but no progress was made towards discovering the cause of the disease.

Bombay.—In the Southern Circle the mortality amongst the sandal-wood trees continued but it does not yet appear to have been decided whether the cause is the "spike" disease or not. Enquiries are now being made. The teak defoliating caterpillar *Pyrausta machœra is,* as usual, did a considerable amount of damage and other insects are reported to have caused a certain amount of injury to various species. More expenditure than usual was incurred on the eradication of prickly pear, especially from the babul coupes; efforts, which appear to have been somewhat unsuccessful, were made in the direction of removing lantana to set free young sandal growing underneath it.

4.—Sylviculture

(a) *Natural reproduction.*

21. On the whole, the year was not an unfavourable one for natural reproduction. A perusal of the reports shows that much progress is being made towards ascertaining the best measures to be adopted in order to obtain natural regeneration and to foster it once it is on the ground. Climatic influences are uncontrollable, but given an adequate staff, a sufficient labour supply and the possibility of controlling grazing, there is no reason to doubt that the natural regeneration of most of the Indian forests will, in a few years, present fewer difficulties than it does at the present time. The following are brief abstracts from the provincial reports.

Bengal.—The natural reproduction of sal was generally good, although climatic influences adversely affected the production of seed and, in the south of the province, its germination. In the Sunderbans the reproduction of *sundri* was unusually profuse, but in Darjeeling the seed of valuable species was conspicuous by its absence. In the latter division the advanced growth of 1906 continued to do well in blocks closed to grazing, and it is said to be fairly clear that natural regeneration can be obtained by a proper system of group fellings, and that planting will probably prove unnecessary in future. Burning over fuel coupes in the Tista Division has resulted in splendid natural regeneration; Coppice reproduction is generally good.

The United Provinces.—On the whole natural reproduction was equal to, or better than, that of a normal year, although deodar and chir gave no seed at all in the Eastern Circle. Sal reproduction was very good and the same remark appears to be applicable in the case of most of the important species. Coppice reproduction was good except in the case of oak in the Naini Tal Division, in which case the results are very disappointing.

The Punjab.—The report contains little information beyond a statement to the effect that grazing is too heavy for the sufficient reproduction of most species. It is stated that in Kangra in some forests *Pinus longifolia* is being replaced by valueless deciduous species which are not grazed by cattle.

Burma.—The reports contain numerous remarks regarding the adverse effect of fire-protection on the natural regeneration of teak. This question is still under close consideration and the experiments in progress may be expected to yield results of much value in the course of a few years. There is little of importance regarding the less important species.

Eastern Bengal and Assam.—The crop of sal seed was generally poor in most localities; it was also considerably damaged by storms. Other species seeded freely for the most part, and measures taken to assist seedlings produced naturally were generally successful. Further experiments regarding the best measures to adopt for this purpose are in progress.

The Central Provinces.—In the Northern and Southern Circles seed crops of the principal species were generally good but the heavy growth of grass seriously interferes with the development of the resulting seedlings. In Berar the year was not a favourable one for the production of seed, while the breaks in the rains caused numbers of seedlings to die. The beneficial effect on natural regeneration of closing areas under regeneration to grazing is stated to be most marked in the case of *Anjan*, while heavy grazing for a year or two before felling is beneficial, as the density of the grass growth is thereby reduced and the seed has a better chance of germinating.

Coppice reproduction is generally very successful everywhere; with some species cutting at height of about 18 inches from the ground yields better results than cutting flush with the ground.

Coorg.—The year was a favourable one for most of the valuable species except teak. Sandal reproduction was especially good.

The North-West Frontier Province.—Deodar seed was unusually scarce during the year and recent reproduction of deodar is not found in any quantity. There is some evidence, however, that reproduction of deodar can be obtained by the judicious admission of light.

Ajmer.—Reproduction by seed is generally poor in the case of most species and that by coppice fair. It is stated that most of the species found in Ajmer reproduce themselves by means of root-suckers.

Baluchistan.—The year was an unfavourable one for natural regeneration by seed, but reproduction by coppice appears to have been satisfactory.

Andamans.—Natural reproduction of padauk appears to be good wherever light is admitted, but so far it has not been found possible to pay sufficient attention to assisting the reproduction so obtained. It is hoped to do more of this important work next year.

Madras.—The short rainfall hampered reproduction in some districts; on the whole, however, reproduction was fair from seed and good from coppice. The results were best in localities protected from fire and closed to grazing.

Bombay.—On the whole the year was a favourable one for natural reproduction. Mention is made of several specific instances where successful fire-protection has resulted in a great

improvement in the number of seedlings which appear. Though teak seeded well in Thana, the opinion is again expressed that the reproduction of this sepecies is poor ; no satisfactory explanation of this fact has yet been found.

(*b*). *Artificial Reproduction.*

[*Vide Appendi XI.*]

22. The area of regular and taungya plantations increased by 3,298 acres and 598 acres, respectively, the total areas at the close of the year being 62,078 acres of regular plantations and 84,721 acres of taungyas. As regards regular plantations, the principal increases were 670 acres in the United Provinces, 636 acres in the Central Provinces, 290 acres in Madras and 987 acres in Bombay. An area of 650 acres was also added in the Punjab, on account of an irrigated plantation, but as the water channels were not in a sufficiently advanced state of construction to permit of planting, the addition is merely a paper one. The increase in the area of taungya plantations was a comparatively small one and was made up of additions of 159 acres in Burma, 153 acres in Coorg, 158 acres in the Andamans and 181 acres in Madras, together with a decrease of 53 acres in the Central Provinces.

The total expenditure on plantations amounted to Rs. 2,76,920, or Rs. 41,117 more than in 1908-09. Included in the expenditure was Rs. 43,742 on account of the Mergui Rubber Plantation in Burma, which was disposed of after the close of the year.

23. Cultural operations comprise all measures of artificial regeneration not amounting to plantations, and are undertaken chiefly for the purpose of introducing or increasing the proportion of valuable species, re-stocking blanks and regenerating coupes after final fellings. It is sometimes difficult to decide whether the operations carried out should be classed under taungya plantations or under cultural operations. In Bengal extensive areas overlooking the Tista Valley, which are being restocked with trees by means of taungya plantations, are included under cultural operations in Form 61, and the so-called agriculture-cum-forestry operations in Bombay are classed under the same head.

The following statement shows the areas newly worked over and the total amount expended on all areas during the years 1908-09 and 1909-10.

	Area newly operated on.	Total expenditure on all areas.
	Acres.	Rs.
Bengal	887	6,888
United Provinces	1,912	5,729
Punjab	140	1,089
Burma	15,733	13,059
Eastern Bengal and Assam	93	705
Central Provinces	2,004	1,186
North-West Frontier Province	30	264
Ajmer	77	17
Andamans	5	52
Madras	17,012	43,915
Bombay	37,968	9,681
Total ..	75,861	82,585
Total for 1908-09 ..	82,144	62,359

(*c*). *Operations for the improvement of the growing stock.*

24. These comprise operations, the outturn of which is usually unsaleable, such as weedings, cleanings, thinnings, improvement fellings, the felling of ficus-bound trees, etc.

The great value of these operations has long been realised, and it is now an accepted fact that in most cases money spent on them is used to better advantage than if expended on the formation of artificial plantations. To carry out most of these operations properly requires more skill than the subordinate staff in most localities yet possesses, but considerable progress in the training of subordinates is being made, the establishment of local schools for this purpose having improved matters considerably. In many of the provincial reports details of the areas worked over and of the cost incurred on such works are not fully given. The following statement gives such information for provinces for which the details available are sufficiently full to justify their inclusion.

Province.	Climber cutting only.		Improvement fellings, thinnings, cleanings, etc.	
	Area.	Cost.	Area.	Cost.
	Acres.	Rs.	Acres.	Rs.
Bengal	23,117	3,112	6,087	3,205
United Provinces	71,319	4,148	32,834	7,386
Punjab	..	..	8,336	6,513
Burma	170,541	31,190	85,990	60,099*
Eastern Bengal and Assam	63,475	8,942	20,779	2,793
Central Provinces	45,835	1,445	74,502	28,261
Coorg	..	..	2,658	532
North-West Frontier Province	..	..	479	109
Total ..	374,287	48,837	231,665	108,898

* Includes Rs. 13,564 on account of felling a large number of ficus-bound trees on an unknown area not included in that covered by the general improvement fellings.

(*d*). *Experiments.*

25. Few of the many experiments in progress in the various provinces appear to have yielded any very definite results during the year under review. An exception must be made in respect of camphor in Burma, where so much success has been attained that the cultivation of this tree is stated to have passed beyond the experimental stage. Camphor also seems to be doing well at Coonoor and Kodaikanal in Madras. The following brief abstracts from provincial reports will give a general idea of what is being done:—

Bengal.—The experimental attempt to provide grazing for the cattle required for the milk supply of Darjeeling by preparing and turfing a special area has proved unsuccessful and has been finally abandoned. The results of three years' observations on equal areas go to show that the yield of *sabai* grass (largely used for paper-making) from unburnt areas is 25 per cent only of that from burnt areas. Fire-protection has resulted in a large reduction in the revenue derived from Sabai grass in the Singhbhum Division. Certain experiments, in connection with the planting and natural regeneration of several species, have not yet yielded definite results.

The United Provinces.—Numerous experiments were made by the Forest Chemist with a view to improving the quality of rosin and turpentine. Chemically the experiments were entirely successful, a far higher standard of purity being obtained, but it is too early to say definitely whether any commercial benefit will result. The results of the experimental cultivation of lac were again disappointing. As only 70 per cent of the billets of spruce and silver fir arrived

at the Dakpathar Depôt and the cost was 11 annas per cubic foot, the result of the measures taken to test the floating capacity of these species was hardly encouraging. It appears, however, that silver fir at any rate floats well and that the small proportion of billets that arrived at Dakpathar may be largely due to theft in transit. More exact information is necessary before a definite conclusion on this point can be arrived at. A large quantity of the seed of blue gum (*Eucalyptus globulus*), obtained from the Nilgiris, germinated profusely and the seedlings developed in a phenomenal manner. Similar sowing of red gum (*Eucalyptus robusta*) were not a success. Other experiments in connection with artificial and natural reproduction can hardly be described as successful; the results are, however, still inconclusive.

The experiments started in Pilibhit in 1907-08 with regard to the capability of storeage of forest fodder grasses have now been concluded, and it is considered that they have shown that such grasses can be stored effectively.

Punjab.—The attempt to introduce eucalyptus in the Simla Hills is being continued on a large scale and has formed the subject of a detailed report to the Local Government. The difficulty is to find a variety that will grow without being tended and watered. Many sylvicultural experiments are in progress and will be reported on in due course. The resin-tapping experiments are being continued and promise well.

Burma.—The further experiments with *Catalpa speciosa* have generally failed, though some success has been obtained with this species at Maymyo (elevation 3,500 feet) and Mogok (4,000 feet). The experiments with manicoba rubber have also failed. Para rubber (*Hevea Brasiliensis*) is reported as growing most successfully in the Bhamo Division and in Myitkyina, a somewhat surprising fact as the climate of these localities is not at all what would generally be considered suitable for Para rubber. Camphor (*Cinnamomum camphora*) is stated to be a striking success and to grow well wherever it has been tried in the Northern Circle and in several localities in the Southern Circle. It probably does best below 4,000 feet. Its cultivation is said to be well beyond the experimental stage. Further experiments at the Government Tannin Factory in Rangoon carried out by the Forest Chemist do not yet appear to have resulted in the production of tannin extracts free from all defects objected to by the trade.

Eastern Bengal and Assam.—A certain number of plants of *Catalpa speciosa* are still alive but the climate does not appear suitable for this species. The lac cultivation experiments have not been very successful; they are still inconclusive and are being continued. The planting of *Ficus elastica* seedlings in the Lushai Hills was successfully continued, but it is too early to say anything definite regarding the experiments with other rubber producing plants.

Central Provinces.—Lac cultivation by departmental agency was generally unsuccessful, and it has been discontinued in several localities. Of the many sylvicultural experiments in progress few have yet yielded definite results; they are being continued. Only about 400 seedlings of *catalpa speciosa*, chiefly in the Melghat and Buldhana Divisions, are still alive and are from 2 to 4 feet high.

North-West Frontier Province.—Experiments with eucalyptus promise well as regards some species and the Robinia seems likely to prove an useful introduction.

Baluchistan.—The attempt to introduce European pines appears likely to prove unsuccessful. Only 87 seedlings now remain as compared with 261 last year.

Madras.—Experiments with exotic species were continued, but except in regard to *Swietenia Mahogani*, *Swietenia Macrophylla*, camphor, bamboos, eucalyptus, red sanders, divi-divi and sissoo in certain localities, the results were not encouraging. Nine varieties of timber-yielding eucalyptus, propagated from seed specially obtained from Australia, are being experimentally planted out at different elevations in the Nilgiris. Experiments to test the effects of fires on the growth of grass, made in all districts in the Northern Circle, yielded no definite results.

Bombay.—The plantations of four species of rubber-producing trees, ceara, *Ficus elastica*, castilloa and para in the Northern Circle are being maintained but no further extensions are to be made at present. So far the results are indefinite. The experiments carried out in some divisions to determine the damage done to forests by cattle grazing, though somewhat incomplete, show that horned cattle unquestionably eat seedlings and coppice shoots of certain species when grass is scarce, and that damage is done to young growth of all kinds by their tread and in other ways.

Experiments with exotic and indigenous species gave generally poor results, and the same remark applies to the endeavours made to propagate lac.

5.—Exploitation.

(*a*) *System of Management.*

26. In the provinces outside the Bombay and Madras Presidencies, the total area brought under regular Working-Plans amounted, in the year under review, to 35,211 square miles. As regards 317 square miles of forest in the Andamans, the remarks of previous years apply to this year also.

The various sylvicultural systems in force over this area are enumerated below:—

Sylvicultural systems.	Area in square mile.	Percentage of total area under each sylvicultural system.
Method of clear fellings by compartments	5	.014
Uniform Method	184	·523
Group Method	1	·003
Selection Method	11,700	33·228
Simple coppice	124	·352
Coppice with Standards	2,909	8·262
Method of Improvement fellings	7,898	22·430
Unallotted	12,390 (*a*)	35·188
Total ..	35,211 (*b*)	100·000

(*a*) Included in forests for which working plans have been prepared but not subjected to any definite system of working.

(*b*) Includes 14 square miles of reserves in Bengal which are not under the control of the Forest Department.

(*b*) *Agency of Exploitation.*

[*Vide Appendix XIII*].

(*i*) *Departmental Agency and* (*ii*) *Purchasers.*

27. The quantity of timber extracted by Government agency was 6,734,088 cubic feet, or 24,178 cubic feet less than in 1908-09. The most important changes in the various provinces were increases in the Punjab (201,167 cubic feet), the Andamans (33,794 cubic feet) and Madras (302,745 cubic feet), and decreases in Burma (224,592 cubic feet), Eastern Bengal and Assam (68,095 cubic feet), the Central Provinces (215,795 cubic feet) the North-West Frontier Province (60,057 cubic feet) and Bombay (36,167 cubic feet). The quantity removed by purchasers was 54,516,295 cubic feet as compared with 53,274,103 cubic feet in the previous year. As usual the provincial figures show considerable fluctuations, those of most importance being increases of 413,375 cubic feet in the United Provinces, 1,485,813 cubic feet in the Punjab and 494,477 cubic feet in Burma, and decreases of 744,437 cubic feet in Bengal and 677,675 cubic feet in Bombay.

As regards fuel, the quantity extracted by Government agency amounted to 22,413,511 cubic feet as compared with 20,104,293 cubic feet in 1908-09. The difference is chiefly due to an increase of 1,867,780 cubic feet in Madras, in which province the quantity extracted amounted to 13,953,682 cubic feet or considerably more than half the total. The quantity extracted by purchasers amounted to 90,751,966 cubic feet, or 3,486,764 cubic feet below the outturn of the previous year. Decreases of 2,219,382 cubic feet, 1,412,695 cubic feet and 6,079,262 cubic feet occurred in Bengal, Madras and Bombay, respectively. There were increases of 1,793,407 cubic feet in the United Provinces, 1,181,838 cubic feet in the Punjab, 1,841,440 cubic feet in Burma and 1,339,819 cubic feet in the Central Provinces

The value of the bamboos extracted by Government agency was Rs. 1,15,827 as compared with Rs. 110,111 in the previous year; that of the bamboos extracted by purchasers also increased, being Rs. 926,627 or Rs. 1,76,304 more than in 1908-09.

The value of the other minor produce (including grass and grazing) extracted departmentally and by purchasers was Rs. 3,64,415 and Rs. 46,27,851, respectively or Rs. 68,980 and Rs. 37,368 more than in the previous year. The provincial changes call for no remark.

(iii) Rights and privileges.

28. The estimated quantities of forest produce removed by right and privilege holders during the last two years were:—

——	1908-09.	1909-10.	Difference.
	Cft.	Cft.	Cft.
Timber (cubic feet)	2,563,187	2,609,490	+36,303
Fuel (cubic feet)	47,125,156	56,065,627	+8,940,471
	Rs.	Rs.	Rs.
Bamboos (value)	89,642	1,03,059	+13,417
Minor produce, including grass and grazing (value)	15,73,766	16,70,634	+96,868

(iv) Free Grants.

29. The forest produce granted free during the year under review and that preceding it were:—

——	1908-09.	1909-10.	Difference.
	Cft.	Cft.	Cft.
Timber (cubic feet)	1,814,338	2,130,724	+316,386
Fuel (cubic feet)	6,157,792	5,911,229	—246,563
	Rs.	Rs.	Rs.
Bamboos (value)	11,209	9,294	—1,915
Minor produce including grass and grazing (value)..	4,79,059	4,93,711	+14,652

(c). Outturn of Forest Produce.

[*Vide Appendix XII*].

30. The following statement shows the total outturn from all classes of forest as compared with that of the previous year:—

Presidency.	Year.	Timber and fuel.	Minor produce (including bamboos).
		Cft.	Rs.
Bengal	1909-10	172,514,202	48,51,604
	1908-09	165,610,113	45,33,914
Madras	1909-10	25,124,626	19,76,801
	1908-09	24,415,574	18,34,235
Bombay	1909-10	43,494,102	14,83,013
	1908-09	42,010,178	15,31,879
Total ..	1909-10	241,132,930	83,11,418
	1908-09	232,035,865	79,00,028

In provinces other than Madras and Bombay, the outturn of timber and fuel from reserved forests amounted to 88,069,189 cubic feet, or 51 per cent of the total, an increase over the outturn of the previous year of more than $5\frac{3}{4}$ million cubic feet. Of the increase, the United Provinces, Burma and the Central Provinces account for nearly 2 millions, more than $2\frac{3}{4}$ millions and nearly one million cubic feet, respectively, while there was a decrease in Bengal of more than $1\frac{1}{4}$ million cubic feet. The total outturn from protected forests amounted to 34,692,811 cubic feet, or 734,374 cubic feet less than in 1908-09. The principal changes in the provincial figures were a decrease of more than a million cubic feet in Bengal and an increase of nearly a quarter of a million cubic feet in the United Provinces. The outturn from unclassed forests was 49,752,202 cubic feet as compared with 47,872,798 cubic feet in 1908-09. In Burma there was an increase of nearly $2\frac{1}{2}$ million cubic feet and in Eastern Bengal and Assam the outturn was slightly in excess of that of the previous year: all other provinces show a decrease.

In Madras the total outturn from all classes of forest was in excess of that of the previous year by nearly three-quarters of a million cubic-feet, and in Bombay the increase was nearly $1\frac{1}{2}$ million cubic feet.

The total value of the minor produce (including bamboos) extracted amounted to Rs. 83,11,418 as compared with Rs. 79,00,028 in 1908-09.

6.—Exports of Forest Produce.

[*Vide Appendix XIV*].

31. The total value of the exports of forest produce at ports of shipment amounted to Rs. 4,20,96,717, as compared with Rs. 4,06,20,228 in 1908-09.

The quantity of rubber exported showed a slight decline of 17 tons to a total of 81 tons. The value, however, increased from Rs. 3,255 to Rs. 6,295 per ton, the total value being Rs. 5,09,904 as compared with Rs. 3,19,039 in the previous year.

The lac market was very depressed and a further fall of nearly 38 per cent in the average value of this product occurred. The total quantity of the various descriptions of lac exported increased from 19,041 tons to 27,740 tons, but the total value decreased by Rs. 2,30,244 to Rs. 2,77,16,718.

Exports of cutch and gambier amounted to 2,040 tons and again showed a decrease (1,102 tons) in quantity. The value, however, increased from Rs. 295 to Rs. 332 per ton.

The quantity of teak exported increased from 27,220 tons to 35,628 tons and the value per ton increased slightly. The total quantity and value were 35,628 tons and Rs. 54,24,433 as compared with 27,220 tons and Rs. 40,19,857, respectively in 1908-09.

CHAPTER III.

FINANCIAL RESULTS.

[Vide Appendices XV to XVIII].

32. The gross revenue, expenditure and surplus and the percentage of expenditure to gross revenue for the last 37 financial years were as follows:—

Quinquennial periods.	Gross Revenue (average).	Expenditure (average).	Surplus (average).	Proportion of expenditure to gross Revenue.
	Rs.	Rs.	Rs.	Rs.
1873-74 to 1877-78	67,23,191	44,76,303	22,46,888	66
1878-79 to 1882-83	79,15,956	52,09,538	27,06,418	66
1883-84 to 1887-88	1,10,59,434	71,42,382	39,17,052	64
1888-89 to 1892-93	1,51,86,115	82,61,176	69,24,939	55
1893-94 to 1897-98	1,74,50,655	96,57,496	77,93,159	55
1898-99 to 1902-03	1,90,22,776	1,08,42,872	81,79,904	57
1903-04 to 1907-08	2,50,55,151	1,35,94,021	1,14,61,130	54
Years.				
1908-09	2,54,56,799	1,47,26,034	1,07,30,765	58
1909-10	2,60,25,794	1,49,20,654	1,11,05,140	57

33. The gross revenue realized was Rs. 5,68,995 in excess of that of the previous year. The expenditure was Rs. 1,94,620 greater so that the surplus increased by Rs. 3,74,375 as compared with 1908-09. The forests of India are still to a great extent undeveloped and unexploited. Much still remains to be done towards improving them and opening them up by the construction of roads and other means of communication, and also in providing an increased and better trained staff. The expenditure must increase accordingly. Further increases in the revenue may also be expected, but it should not be forgotten that a forest crop takes many years to come to maturity and that increased expenditure on forests cannot always result in an immediate corresponding increase in revenue.

34. The principal variations in the gross revenue in the various provinces, as compared with 1908-09, were increases in the United Provinces (Rs. 1,25,758), Burma (Rs. 1,66,045), Eastern Bengal and Assam (Rs. 88,364), the North-West Frontier Province (Rs. 50,523), the Andamans (Rs. 57,459), Madras (Rs. 2,87,462) and Bombay (Rs. 1,70,300) and decreases in Bengal (Rs. 1,04,205) and the Punjab (Rs. 2,56,159).

35. The most important changes in expenditure were increases in Eastern Bengal and Assam (Rs. 1,21,192) and in Madras (Rs. 4,22,374) and decreases in the Punjab (Rs. 1,83,875) and the Central Provinces (Rs. 1,66,455). The large increase in Madras is due chiefly to more extensive departmental operations for the exploitation and improvement of the forests. The decrease in the Central Provinces is ascribed to less expenditure on communications and buildings and on the organisation, improvement and extension of the forests, owing to lack of funds.

36. Increases in the net revenue occurred in the United Provinces (Rs. 1,38,886), Burma (Rs. 1,99,674), the Central Provinces (Rs. 1,66,633), the North-West Frontier Province (Rs. 54,545), the Andamans (Rs. 44,241), and Bombay (Rs. 1,51,085). Decreases are shown by Bengal (Rs. 1,11,323), the Punjab (Rs. 72,284), Eastern Bengal and Assam (Rs. 32,828), Coorg (Rs. 19,428), Ajmer (Rs. 2,981) and Madras (Rs. 1,34,912). Baluchistan alone shows a deficit which amounted to Rs. 7,820 or Rs. 5,461 less than in 1908-09.

37. The value of the forest produce removed by right holders, or granted free or at reduced rates, during the year under review, is estimated to be Rs. 46,71,292, or Rs. 73,842 more than in the previous year. The principal variations were increases of nearly one lakh in the value of timber and of nearly $6\frac{1}{2}$ lakhs in that of grass and grazing, and decrease of nearly $3\frac{3}{4}$ lakhs and 3 lakhs on account of fuel and miscellaneous produce, respectively.

38. The following statement shows the financial results of the working of the forests after deducting capital expenditure not yielding an immediate return :—

			Rs.
Gross Revenue			2,60,25,794
Value of produce granted free or at reduced rates ..			46,71,292
Total value of yield ..			3,06,97,086
		Rs.	
Gross expenditure		1,49,20,654	
Deduct expenditure not yielding an immediate return—			
	Rs.		
(*a*) Roads ..	13,65,555		
(*b*) Cultural operations	7,77,055		
(*c*) Working-Plans ..	83,521		
(*d*) Settlements ..	1,81,427		
(*e*) Surveys	85,104		
(*f*) Demarcation ..	1,36,717		
	26,29,379		
Balance of direct revenue-producing expenditure ..			1,22,91,275
Surplus over expenditure directly chargeable to revenue ..			1,84,05,811

CHAPTER IV.

GENERAL.

39. Mr. F. Beadon Bryant continued to hold the post of Inspector-General of Forests during the year.

No changes occurred in the sanctioned permanent establishment of the department.

40. The following table shows the officers on foreign service in India, and serving under other Governments :—

In India.

Imperial Service.

1. Mr. W. H. Lovegrove (United Provinces) Kashmir from October 1907.
2. Mr. R. M. Williamson (Central Provinces) Rewah State from October 1907.
3. Mr. C. G. Trevor (Punjab) Chamba State from April 1908.
4. Mr. R. Kirkpatrick (Bengal) Khondmals State from March 1909 to July 1909.

Provincial Service.

1. A. P. Swami Mudaliar (Bengal) Mysore.
2. Lala Har Sarup (United Provinces) Gwalior.
3. Rai Kesho Nand Bahadur (United Provinces) Kashmir. (Reverted from 1st May 1910).
4. Lala Daulat Ram (Punjab) Kashmir (Reverted in August 1909).
5. Pandit Thakur Das (Punjab) Jubal State.
6. Mr. W. G. Gilmore (Central Provinces) Indore State.
7. Mr. B. Inamati Sham Rao (Central Provinces) Mysore.
8. Mr. F. J. Langhorne (Central Provinces) Court of Wards.
9. Rai Bahadur M. Muttannah (Madras) Mysore.
10. Rao Sahib M. Rama Rao (Madras) Travancore.
11. Mr. G. W. Thompson (Madras) Jeypore.
12. Mr. B. H. Dalal (Bombay) Rajpipla.
13. Mr. E. A. Rooke (Central Provinces) Bastar State.

Under other Governments.

1. Mr. W. F. Lloyd (Bengal) Siam from August 1905.

41. Seventeen officers, who had completed the forestry course at Oxford, were appointed Assistant Conservators of Forests and arrived in India about the end of 1909. Nine were posted to Burma, three to Eastern Bengal and Assam, two each to the United Provinces and Bombay and one each to the Punjab, the Central Provinces and Bengal.

42. One officer of the Imperial Service retired and one died during the year, so that casualties were unusually few.

APPENDIX I.

[*Vide* Paragraphs 1-3.]

Area of all forest lands.

Province.		Forest area in square miles.				Percentage of forests to whole area of Province.	Remarks.
Name.	Area in square miles.	Reserved.	Protected.	Unclassed State.	Total.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	116,050	(a) 4,234	(b) 2,771	..	7,005	6·0	(a) Excludes 14 square miles of Reserved forests not under the management of the Forest Department.
United Provinces ..	107,637	(c) 4,103	(d) 30	42	4,175	3·9	(b) Excludes 942 square miles not under the control of the Forest Department.
Punjab	97,211	(e) 2,211	5,209	1,332	8,752	9·0	(c) Includes 156 square miles of leased forests.
Burma	178,125	25,692	..	113,007	138,699	77·9	(d) Excludes 9,069 square miles of district Protected Forests not under the control of the Forest Department.
Eastern Bengal and Assam.	93,783	(f) 6,477	4	22,752	29,233	31·2	(e) Includes 367 square miles of leased forests but excludes 110 square miles not under the management of the Forest Department.
Central Provinces ..	99,732	21,436	..	..	21,436	21·5	(f) Excludes 6 square miles of Reserved forests not under the management of the Forest Department.
Coorg	1,582	520	..	..	520	32·9	(g) Excludes 13 square miles of Military and Civil Reserved Forests.
North-West Frontier Province.	13,184	(g) 236	(h)	..	236	1·8	(h) 121 square miles of Civil Protected Forests are not shown.
Ajmer	2,767	142	(i)	..	(j) 142	5·1	(i) There are only 115 acres of Protected Forests in Ajmer.
Baluchistan ..	9,403	289	..	496	785	8·3	(j) Excludes 6 square miles of unclassed forests not under the management of the Forest Department.
Andamans ..	3,143	161	..	1,791	1,952	62·1	(k) Reserved lands including 158 square miles of leased forests.
Madras	142,413	18,769	..	(k) 843	19,612	13·8	(l) Includes 656 square miles of leased forests and excludes 2,112 square miles of forests in charge of the Revenue Department.
Bombay	122,960	12,204	800	..	(l) 13,004	10·5	
Total 1909-10 ..	987,990	96,474	8,814	140,263	245,551	24·9	
„ 1908-09 ..	986,144	94,561	8,835	138,378	241,774	24·5	
„ 1907-08 ..	985,938	94,059	8,853	134,897	237,809	24·2	
„ 1906-07 ..	987,749	94,037	9,468	136,633	240,138	24·3	
„ 1905-06 ..	970,617	92,496	10,018	131,137	233,651	24·1	

APPEN

[*Vide* para

Progress in Forest

Province.	AREAS ALREADY SETTLED AT THE COMMENCEMENT OF THE YEAR.			AREAS FINALLY SETTLED DURING THE YEAR.					
				Year.			*Expenditure incurred.*		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
Bengal	4,240	..	4,240	8	..	8	392	..	392
United Provinces ..	3,935	30	3,965	12	..	12	..	..	..
Punjab	1,953	5,222	7,175	5	..	5	..	..	..
Burma	23,753	..	23,753	1,963	..	1,963	13,079	..	13,079
Eastern Bengal and Assam	6,421	..	6,421	77	..	77	75	..	75
Central Provinces ..	18,180	..	18,180	4	..	4	..	..	..
Coorg	520	..	520	..	..	..	(a) 55	..	55
North-West Frontier Province.	(b) 236	(c)	236	..	..	..	..	..	..
Ajmer	..	..	..	..	..	..	..	..	..
Baluchistan	(a) 288	..	288	1	..	1	..	..	..
Andamans	161	..	161	..	..	..	..	..	..
Madras	16,881	..	16,881	11	..	11	..	..	..
Bombay	13,443	910	14,353	15	..	15	..	..	..
Total .. 1909–10	90,011	6,162	96,173	2,096	..	2,096	13,601	..	13,601
Total .. 1908–09	90,915	6,289	97,204	1,217	13	1,230	8,583	..	8,583
Total .. 1907-08	89,197	6,310	95,507	1,798	..	1,798	7,490	..	7,490
Total .. 1906–07	87,523	6,151	93,674	1,674	138	1,812	3,151	..	3,151
Total .. 1905–06	87,159	5,764	92,923	567	140	707	4,238	..	5,808

(*a*) Represents the pay and travelling allowance of a Surveyor who was employed for a few days.
(*b*) Excludes 14 square miles of Military Reserved Forests.
(*c*) 121 square miles of Civil Protected Forests not shown.

DIX II.

graph 4].

Settlements.

AREA UNDERGOING SETTLEMENT.								
At commencement of the year.			*Taken in hand during the year.*			*Expenditure incurred during the year.*		
Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
19	..	19	..	..	..	..	..	..
12	..	12	..	..	..	8	..	8
11	205	216	24	..	24	..	..	..
2,687	..	2,687	787	..	787	5,959	..	5,959
36	..	36	..	..	..	..	..	..
6	..	6	7	..	7	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
16	..	16	24	..	24	..	..	..
..	..	..	..	..	..	..	..	..
505	..	505	23	..	23	(e)1,05,639	..	1,05,639
30	..	30	2	..	2	1,365	..	1,365
3,322	205	3,527	867	..	867	1,12,971	..	1,12,971
5,323	205	5,528	824	..	824	34,326	..	34,326
3,122	205	3,327	3,575	..	3,575	34,188	..	34,188
1,954	205	2,159	2,978	1	2,979	25,108	..	25,103
3,241	205	3,446	454	..	454	29,771	..	29,771

(*d*) Corrected area.
(*e*) Excludes Rs. 669 shown under othes accounts.

APPENDIX III.

[*Vide* paragraph 5.]

Demarcation and Maintenance of Boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarkation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	262	3,194	487	(a) 3,963	..	1,028	4,991	771	2,114
United Provinces..	2	1,545	2,883	4,430	9	1,572	6,011	171	10,192
Punjab ..	24	2,315	7,568	9,907	22	1,107	11,036	1,004	5,058
Burma	906	3,602	13,600	18,108	1,099	3,498	22,705	7,056	21,953
Eastern Bengal and Assam.	117	2,014	123	2,254	173	2,533	4,960	3,729	10,567
Central Provinces	103	24,327	9,613	34,043	61	2,758	36,862	2,799	18,848
Coorg	..	..	307	307	173	56	536	..	89
North-West Frontier Province.	..	20	757	777	..	139	916	..	354
Ajmer	..	2	259	261	..	158	419	14	33
Baluchistan ..	2	187	238	427	..	77	504	..	5
Andamans ..	8	9	58	75	6	116	197	46	4
Madras	644	19,640	14,575	34,859	1,020	1,775	37,654	15,303	16,714
Bombay ..	504	8,030	28,022	36,556	3,470	3,246	43,272	4,367	6,198
Total 1909-10 ..	2,572	64,885	78,490	145,967	6,033	18,063	170,063	35,260	92,129
„ 1908-09 ..	2,727	61,235	78,594	142,576	6,117	17,576	166,269	46,362	97,774
„ 1907-08 ..	2,421	55,439	83,367	141,227	10,653	17,490	169,370	57,006	89,154
„ 1906-07 ..	2,611	57,599	83,026	143,256	11,869	16,250	171,375	33,562	70,311
„ 1905-06 ..	3,319	55,317	76,705	135,341	17,896	16,456	169,693	44,482	79,967

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private and other lands within the forests but not the limits of Sub-divisions, such as blocks, compartments and coupes.

(*a*) Includes 20 miles demarcated by lessees of adjacent waste lands in the Sundarbans.

APPENDIX IV.

[*Vide* paragraphs 6–9.]

Forest Survey Operations.

Province.	Forest surveyed.	NATURE OF SURVEY OPERATIONS. 1" *detail survey* 2" *detail survey*. Area.	Cost rate.	Area.	Cost. rate.	4" *detail survey*. Area.	Cost. rate.	TOTAL AREA OF DETAIL SURVEY. 19 19 up to	Total up to date.	Expenditure of the year including mapping and publishing charges debitable to forests.	REMARKS.
1	2	3	4	5	6	7	8	9	10	11	12
		Sq.m.	Rs.	Sq.m.	Rs.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	(*a*) Includes an area of 2,223 sq. miles surveyed on the 4" scale by the old Forest Survey Branch, but omitted in column 7 of Appendix V of the Review for 1906-07.
Bengal	..	..	..	..	..	..	..	..	(*a*) 4,530	..	(*b*) Excludes 167 sq. miles previously surveyed on the 4" scale by the Old Forest Survey Branch.
United Provinces ..	Pilibhit ..	..	..	..	..	..	..	..	4,139	107	(*c*) Cost of additional details in the survey of the Mosit reserve (specially surveyed for the Forest Department) including mapping and publishing charges.
	Kheri ..	..	..	..	..	..	..	..		43	(*d*) Linear miles of boundary traverse (Skeleton boundary Survey).
	Gorakhpur ..	..	..	..	..	..	..	..		69	(*e*) Cost rate not given.
	Bahraich ..	..	..	..	..	..	..	..		271	(*f*) Includes (*d*) (of the Central Provinces only) 420 linear miles of boundary survey.
	Naini Tal ..	..	..	..	..	..	..	..		170	(*g*) Excludes 131 sq. miles of resurvey in south Coimbatore.
	Garhwal ..	..	..	..	..	..	..	..		18	(*h*) Includes (*d*) (of Bombay only) 316 linear miles of boundary survey.
	Ganges ..	..	..	..	..	..	..	.		62	(*i*) Mapping and publishing charges only: and excludes Forest map office Headquarters charges Rs. 41,165 and the cost borne by the Survey of India.
Punjab	Shahpur ..	..	..	(*b*) 180	29·7	..	..	214	3,786	890	(*j*) Excludes Headquarters charges Rs. 38,943.
	Jhelum ..	..	..	34						..	(*k*) Excludes Headquarters charges Rs. 30,655.
	Bashahr ..	..	..	..	..	..	..	..		5	(*l*) Excludes Headquarters charges Rs. 32,022.
Burma	..	..	..	..	..	..	..	..	14,132	(*c*) 3345	(*m*) Excludes Headquarters charges Rs. 29,655.
Eastern-Bengal and Assam	Cachar ..	..	..	293	62·5	..	..	..	2,334	..	
	Sylhet ..	..	..	94		..	..	387			
Central Provinces ..	Berar ..	..	..	78	35·1	(*d*)420	(*e*)	(*f*) 498	19,796	6 6	
Coorg	..	..	..	309	44·0	..	..	309	405	..	
North-West Frontier Province.	Hazara ..	..	..	..	..	..	..	..	445	122	
Ajmer	..	..	..	..	..	..	..	..	144		
Baluchistan	..	120	24·3	..	..	..	..	120	227		
Andamans	..	..	..	..	..	..	..	..	..		
Madras	Nilgiris ..	..	..	59	30·5	..	..	(*g*)			
	Central Coimbatore.	..	..	48				(*g*) 147	15,062		
	South Canara ..	..	..	40	44·9	..	..				
Bombay	East Khandesh ..	..	..	235	35·1	(*d*) 316	(*e*)	(*h*) 551	13,494		
Total 1909-10 ..		120	..	1,370	..	(*d*) 736	..	2,226	78,494	(*i*) 5,708	
„ 1908-09 ..		29	..	1,881	..	736	..	2,646	76,268	(*j*) 9,935	
„ 1907-08 ..		43	..	2,676	..	43	..	2,762	73,622	(*k*) 6,199	
„ 1906-07 ..		..	..	1,648	..	579	..	2,227	70,860	(*l*) 63,297	
„ 1905-06 ..		..	..	571	..	3,036	..	3,607	68,633	(*m*)2,72,423	

Note 1.—In columns 3, 5 and 7 no entry should be made in the case of forests which have previously been specially surveyed for *forest purposes* on any scale; but a note should be added in the "Remarks" column to show surveys that are carried out for a second time and are not included in these columns.

Note 2.—When forests are specially surveyed for the Forest Department and the cost is debitable to that Department, a note to that effect should be made in the column of "Remarks."

APPENDIX V.

[*Vide* paragraphs 10 and 11.]

Progress made in Working Plans.

Province			Areas for which Working-plans have been sanctioned by Local Governments.		Areas for which Working-plans are being compiled.		Area for which Working-plans have still to be taken in hand.	Areas for which Working-plans are not at present required.	Total forest areas as Appendix I.	Percentage of area under Working plans to the total forest area.	Remarks.
			At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the the year.					
1			2	3	4	5	6	7	8	9	10
			Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.		
Bengal		..	(a) 5,494	..	(b) 184	..	(c) 1,327	..	7,005	78	(a) Revised area excludes 14 square miles of "other Reserves."
United Provinces		..	3,779	(d)	300	..	96	..	4,175	91	
Punjab		..	(e) 4,010	..	361	422	3,959	..	8,752	46	(b) Excludes 212 square miles for which a revised Working-plan is under preparation.
Burma		..	(e) 6,970	309	(e) 1,550	498	(e) 129,372	..	138,699	5	
Eastern Bengal and Assam		..	1,300	(f) 160	(e) 195	176	4,656	22,746	29,233	5	(c) Excludes 942 square miles of "other protected Forests."
Central Provinces		..	(e) 12,641	..	(g)	(h) 758	5,935	2,102	21,436	59	(d) Excludes 334 square miles for which a revised Working-plan was sanctioned.
Coorg		..	158	..	..	20	342	..	520	30	
North-West Frontier Province		..	236	..	..	..	..	..	236	100	(e) Revised areas.
Ajmer		..	140	..	..	..	2	..	142	99	(f) Excludes 4 square miles of "unclassed state Forests."
Baluchistan		..	..	..	..	..	289	496	785	..	
Andamans		..	..	..	(i) 317	..	1,635	..	1,952	..	(g) Excludes 524 square miles for which a revised Working plan is under preparation.
Madras		..	(e) 7,046	(e) 847	(e) 2,655	214	8,657	193	19,612	40	
Bombay		..	(e) 6,330	1	(e) 389	204	5,409	671	13,004	49	(h) Excludes 1,628 square miles for which a revised Working-plan is under preparation.
Total	1909-10	..	48,104	1,317	5,951	2,292	161,679	26,208	245,551	20	(i) Compiled in 1906-07 but not yet sanctioned or in operation.
„	1908-09	..	44,848	3,453	5,315	2,378	185,780		241,774	20	
„	1907-08	..	42,441	2,711	7,357	2,559	182,741	Included in column 6	237,809	19	
„	1906-07	..	41,586	882	9,061	2,001	186,608		240,138	18	
„	1905 06	..	37,551	2,371	8,257	2,168	183,304		233,651	17	

Note.—It should be explained in the "Remarks" column how far the areas shown are for revised working-plans and have already appeared in the Form.

APPENDIX VI.

[*Vide* paragraphs 12 to 14.]

Expenditure on Communications and Buildings.

Province. (1)	New works.		Repairs.		Other Works. (6)	Total. (7)
	Buildings (2)	Roads. (3)	Buildings (4)	Roads. (5)		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	29,318	15,421	12,512	12,305	3,792	73,348
United Provinces	52,324	6,255	23,061	50,162	11,466	1,43,268
Punjab	20,154	25,760	8,067	22,617	2,430	79,028
Burma	1,25,681	58,158	48,864	21,157	17,238	2,71,098
Eastern Bengal and Assam ..	68,633	33,969	18,710	7,617	5,887	1,34,816
Central Provinces	76,096	43,603	24,120	19,355	41,106	2,04,280
Coorg	617	..	1,512	1,352	35	3,516
North-West Frontier Province ..	5,048	4,078	473	1,026	407	11,032
Ajmer	587	105	85	106	215	1,098
Baluchistan	..	..	359	..	..	359
Andamans	1,903	378	328	3,382	(a) 2,466	8,457
Madras	1,20,893	52,902	43,033	33,903	17,324	2,68,055
Bombay	36,038	5,171	11,100	20,374	28,930	1,01,613
Total 1909-10	5,37,292	2,45,800	1,92,224	1,93,356	1,31,296	12,99,968
„ 1908-09	4,45,273	3,23,560	2,08,284	2,16,620	1,75,987	13,69,724
„ 1907-08	4,64,060	3,48,394	1,81,440	2,01,237	1,75,692	13,70,823
„ 1906-07	3,61,543	1,96,738	1,62,205	1,93,338	82,089	9,95,913
„ 1905-06	3,56,536	1,51,345	1,52,979	1,41,071	64,835	8,66,766

(a) Cost incurred on temporary tram lines.

APPENDIX VII.

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules.

Province.		Cases pending from 19-19.	New Cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		*Convictions.*		*Acquittals.*		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Bengal ..	A.	35	20	100	10	45	175	210	145	433	28	145	173	578	23
	B.	92	4	1,303	523	61	1,891	1,983	1,816	3,588	..	..	1,816	3,588	157
	C.	4	108	6	..	1	115	119	..	..	..	..	..	..	..
Total ..		131	132	1,409	533	107	2,181	2,312	1,961	4,021	28	145	1,989	4,166	180
United Provinces	A.	8	15	36	48	20	119	127	98	211	20	92	118	303	9
	B.	81	12	875	751	57	1,695	1,776	1,717	4,223	..	..	1,717	4,223	48
	C.	..	62	106	18	2	183	183	..	..	..	..	..	..	..
Total ..		89	89	1,017	812	79	1,997	2,086	1,815	4,434	20	92	1,835	4,526	57
Punjab ..	A.	137	28	533	206	85	852	989	638	1,228	121	315	759	1,543	206
	B.	7	24	2,647	3,629	56	6,356	6,363	6,355	9,589	..	..	6,355	9,589	1
	C	..	123	39	8	1	171	171	..	..	..	..	..	..	..
Toatl ..		144	175	3,219	3,843	142	7,379	7,523	6,993	10,817	121	315	7,114	11,132	207
Burma ..	A.	195	22	706	51	133	912	1,107	706	1,309	172	432	878	1,741	226
	B.	142	14	1,635	76	826	2,551	2,693	2,429	3,226	..	1	2,429	3,227	180
	C.	..	7	24	..	..	31	31	..	..	..	..	..	..	..
Total ..		337	43	2,365	127	959	3,494	3,831	3,135	4,535	172	433	3,307	4,968	406
Eastern Bengal and Assam.	A.	40	2	150	22	68	242	282	196	575	38	197	234	772	47
	B.	2	3	491	160	136	790	792	791	1,628	..	..	791	1,628	1
	C.	..	19	3	..	..	22	22	..	..	..	..	..	..	..
Total ..		42	24	644	182	204	1,054	1,096	987	2,203	38	197	1,025	2,400	48
Central Provinces	A.	26	57	98	109	43	307	333	237	551	64	267	301	818	32
	B.	232	156	3,819	4,121	288	8,384	8,616	7,985	22,537	1	16	7,986	22,553	625
	C.	..	394	207	9	1	611	611	..	..	..	..	..	..	..
Total ..		258	607	4,124	4,239	332	9,302	9,560	8,222	23,088	65	283	8,287	23,371	657
Coorg ..	A.	1	3	4	..	2	9	10	4	9	3	5	7	14	3
	B.	..	1	3	5	16	25	25	18	55	7	10	25	65	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		1	4	7	5	18	34	35	22	64	10	15	32	79	3
North-West Frontier Province	A.	61	5	94	43	9	151	212	130	359	33	153	163	512	41
	B.	..	2	376	411	1	790	790	793	1,384	..	..	793	1,384	..
	C.	..	14	81	17	1	63	63	..	..	..	..	..	..	..
Total ..		61	21	501		11	1,004	1,065	923	1,743	33	153	956	1,896	41

APPENDIX VII—*contd.*

[*Vide* paragraphs 15 and 16.]

Breaches of Forest Rules—contd.

Province.		Cases pending from 1908-09.	New Cases of the year.						Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total Cases.	Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ajmer ..	A.	..	..	24	12	..	36	36	33	58	3	3	36	61	..
	B.	..	4	117	211	7	339	339	332	538	7	13	339	551	..
	C.	..	2	1	..	..	3	3	..	..	..	..	..	..	..
Total ..		..	6	142	223	7	378	378	365	596	10	16	375	612	..
Baluchistan ..	A.	13	3	37	6	2	48	61	48	95	8	39	56	134	5
	B.	..	..	2	3	..	5	5	5	9	..	..	5	9	..
	C.	..	5	..	..	..	5	5	..	..	..	..	..	..	..
Total ..		13	8	39	9	2	58	71	53	104	8	39	61	143	5
Andamans ..	A.	..	..	6	..	..	6	6	6	7	..	..	6	7	..
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	..	6	..	..	6	6	6	7	..	..	6	7	..
Madras ..	A.	1,645	67	3,009	1,444	341	4,861	6,506	3,995	11,500	576	1,904	4,571	13,404	1,614
	B.	3,324	39	11,556	6,630	615	18,840	22,164	17,251	39,717	..	..	17,251	39,717	3,644
	C.	19	842	287	423	24	1,576	1,595	..	..	..	..	..	..	..
Total ..		4,988	948	14,852	8,497	980	25,277	30,265	21,246	51,217	576	1,904	21,822	53,121	5,258
Bombay ..	A.	378	148	440	328	91	1,007	1,385	962	2,298	144	420	1,106	2,718	249
	B.	575	214	5,806	8,138	615	14,773	15,348	14,907	29,269	..	..	14,907	29,269	436
	C.	5	2,107	1,958	83	50	4,198	4,203	..	..	..	..	..	..	..
Total ..		958	2,469	8,204	8,549	756	19,978	20,936	15,869	31,567	144	420	16,013	31,987	685
Grand Total ..	A.	2,539	370	5,237	2,279	839	8,725	11,264	7,198	18,633	1,210	3,972	8,408	22,605	2,455
	B.	4,455	473	28,630	24,658	2,678	56,439	60,894	54,399	114,763	15	40	54,414	115,803	5,092
	C.	28	3,683	2,662	553	80	6,978	7,006	..	..	..	..	..	..	..
Grand Total	1909–10	7,022	4,526	36,529	27,490	3,597	72,142	79,164	61,597	133,396	1,225	4,012	62,822	138,408	(a) 7,547
„	1908–09	6,982	3,615	37,238	26,173	4,274	71,300	78,282	60,511	136,237	1,443	5,180	61,954	141,417	7,022
„	1907–08	6,091	4,679	35,470	25,016	4,528	69,693	75,784	57,602	126,195	1,229	4,708	58,831	130,903	7,131
„	1906–07	5,833	4,138	33,296	24,809	5,213	67,456	73,289	56,347	124,503	1,511	5,635	57,858	130,138	6,057
„	1905–06	5,227	4,320	33,911	24,684	4,771	67,686	72,913	56,294	130,188	1,429	5,473	57,723	135,661	5,888

N. B.—A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.
(*a*) Excludes 1,789 cases withdrawn.

APPENDIX VIII.

[*Vide* paragraph 17.]

Causes of Forest Fires.

Province.	Fires originating in departmental Fire Conservancy operations.		External fires crossing the fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		Total.	
(1)	No. (2)	Sq. m. (3)	No. (4)	Sq. m. (5)	No. (6)	Sq. m. (7)	No. (8)	Sq. m. (9)	No. (10)	Sq. m. (11)	No. (12)	Sq. m. (13)
Bengal	5	0·1	13	8·1	(*a*) 22	32·5	18	11	..	..	58	51·7
United Provinces ..	25	5	21	22	28	12	4	15·8	42	24·8	20	79·6
Punjab	1	5·7	21	5·4	110	4·6	36	3·3	25	11·2	193	30·2
Burma	19	16·5	15	16·5	(*b*) 44	24·9	13	5·4	15	1·8	106	65·1
Eastern Bengal and Assam.	1	..	4	·9	(*a*) 22	8·7	3	·1	..	..	30	9·7
Central Provinces ..	92	57·3	129	215·7	142	178·8	25	110·8	187	238·4	575	801
Coorg	1	..	2	·1	1	..	4	·1	1	..	9	·3
North-West Frontier Province.	..	..	..	..	7	..	12	2·3	..	..	19	2·4
Ajmer	2	..	..	..	(*a*) 4	·2	..	..	..	..	6	·3
Baluchistan ..	..	..	..	..	..	..	..	..	..	..	..	..
Andamans ..	..	..	..	..	..	..	..	..	..	..	..	..
Madras	87	42·2	167	297·3	355	71·5	352	379·9	694	644·2	16·55	1,435·7
Bombay	88	25·2	143	88·9	1,367	(*c*)196·3	185	68·7	758	400·4	2,541	779·5
Total 1909-10 ..	321	152·0	515	654·9	2,102	529·5	652	597·4	1,722	1,320·8	5,312	3,254·9
„ 1908-09 ..	302	77·0	394	496·7	(*a*)2,651	1,015·4	441	313·8	..	..	3,788	1,902·9
„ 1907-08 ..	351	223·7	551	676·9	(*a*) 3,572	1,678·4	727	596·6	Included in columns 6 and 7.	..	5,201	3,175·6
„ 1906-07 ..	283	110·6	416	371·7	(*a*) 3,214	1,798·4	479	300			4,392	2,580·7
„ 1905-06 ..	297	217	458	623½	(*a*) 2,250	1,271	1,887	1,386½	..	..	4,892	3,498

(*a*) Includes fires due to unknown causes.
(*b*) Includes fires due to unknown causes in the Pegu Circle.
(*c*) Includes fires due to unknown causes in the Northern and Sind Circles.

APPENDIX IX.

[*Vide* paragraph 18 to 21.]

Area closed and open to Grazing.

Province.	Area in square miles.					Total area.	Remarks.
	Closed to all Animals.		*Closed to browsers, camels, goats or sheep.*		*Open to all animals.*		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	5,358	32	657	66	1,848	7,961	
United Provinces ..	2,175	124	632	..	1,244	4,175	
Punjab	569	311	606	95	7,171	8,752	
Burma	20,505	4,026	126	6	114,036	138,699	
Eastern Bengal and Assam	5,575	..	183	..	23,481	29,239	
Central Provinces ..	3,492	538	8,909	17	8,480	21,436	
Coorg	179	341	..	..	..	520	
North-West Frontier Province.	83	6	100	..	47	236	
Ajmer	57	23	57	..	5	142	
Baluchistan	200	18	13	..	554	785	
Andamans	161	..	..	..	1,791	1,952	
Madras	2,388	147	930	2	(*a*)16,145	19,612	
Bombay	2,463	1,127	7,802	9	3,715	15,116	
Total 1909–10 ..	43,205	6,693	20,015	195	178,517	248,625	

(*a*) Of this area goats were admitted to 789 square miles only.

Note.—Separate figures for areas in charge of the Forest Department not being obtainable from the provincial forms, this statement includes figures for 956 square miles in Bengal, 6 square miles in Eastern Bengal and Assam and 2,112 square miles in Bombay which are under the control of the Revenue authorities.

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[*Vide* para

Protection

Province.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.									
	At full rates.					At privileged rates.				
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	8,692	33,342	4,998	..	12	9,288	152,351	12,678	..	539
United Provinces ..	69,592	207,926	77,883	2,102	8,660	28,577	145,695	114,597	5	302
Punjab	17,053	37,974	376,412	9,794	3,012	40	8,307	257,754	13	90
Burma	4,675	21,126	2,517	..	24	154	..	..	..	..
Eastern Bengal and Assam	51,199	17,713	291	..	632	..	91,252	..	..	..
Central Provinces ..	449,945	2,229,056	644,828	200	8,096	17,678	489,787	1,025	..	42
Coorg	465	2,137	..	..	..	..	..	..	..	..
North-West Frontier Province.	1,236	1,262	325	..	34	..	..	..	..	..
Ajmer	359	2,053	..	..	..	2,183	11,276	..	..	..
Baluchistan	559	5,611	4,222	..	22	..	..	..	..	..
Madras	109,449	970,611	1,560,134	..	110	16,140	78,607	13,635	..	8
Bombay	16,669	(a)74,863	89,262	1,278	1,100	74,767	(a)829,993	176,488	41	2,537
Total 1909-10 ..	729,893	3,603,674	2,760,872	13,374	21,702	148,827	1,807,268	576,177	59	3,518
„ 1908-09 ..	860,729	4,547,396	3,342,919	15,381	24,895	162,773	1,891,704	575,115	50	5,965
„ 1907-08 ..	682,263	3,955,142	3,247,292	20,928	33,266	225,677	1,687,295	590,358	191	5,652
„ 1906-07 ..	790,146	4,261,849	3,034,793	13,915	21,157	223,817	1,560,713	710,338	300	9,929
„ 1905-06 ..	731,377	4,064,332	3,010,997	10,421	22,091	660,991	1,555,800	608,116	256	8,999

(a) Includes buffaloes in the Southern Circle.

DIX X.

graphs 18 to 21.]

from Cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
By right under Settlement.					During pleasure of Government or otherwise than under Settlement.				
Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
30,866	82,734	21,000	..	..	110	322	130	..	3
20,268	127,064	45,083	..	987	3,291	20,940	832	..	78
139,344	650,264	954,566	307	180,565	92	1,037	106	7,341	36
51,515	221,075	..	..	3	1,249	..	2	43	1,192
..	60	..	..	..	67,761	397,507	81,690	..	573
..	350	..	..	..	1,454	149,018	839	..	77
..	210	..	..	..	..	..	..	..	..
370	740	..	..	..	1,402	7,098	..	..	15
..	..	..	..	..	..	1,443	..	..	..
..	1,573	29,883	1	858	..	..	..	..	..
125	2,104	4,363	..	..	6,187	55,505	184	..	..
2,519	9,775	91	2	364	80,710	344,522	575	497	3,291
245,007	1,095,949	1,054,986	310	182,777	162,256	977,392	84,358	7,881	5,265
257,681	1,236,268	791,327	401	16,985	128,149	806,629	77,254	4,701	5,282
244,966	1,135,089	800,972	285	15,222	280,770	1,467,382	132,781	5,243	5,812
256,502	1,141,481	793,228	285	15,355	125,550	726,647	76,996	3,120	6,214
247,628	1,080,742	745,249	285	13,846	149,062	839,288	78,966	5,550	6,859

APPENDIX XI.

[*Vide* paragraphs 22 to 26].

Area of Plantations and the cost of the year's work.

Province.			Area in acres at close of the year.			
			Regular plantations.	Taungyas.	Total.	Cost of operations during the year.
1			2	3	4	5
						Rs.
Bengal			1,019	85	1,104	1,352
United Provinces			6,001	..	6,001	4,399
Punjab			650	..	650	656
Burma			5,134	75,493	80,627	(a)81,768
Eastern Bengal and Assam			3,906	7	3,913	5,441
Central Provinces			2,110	3,942	6,052	3,710
Coorg			2,062	1,533	3,595	3,849
North-West Frontier Province ..			..	..	..	..
Ajmer			64	..	64	815
Baluchistan			37	..	37	395
Andamans			770	1,253	2,023	4,359
Madras			27,400	2,408	29,808	1,50,185
Bombay			12,925	..	12,925	19,991
Total	1909-10	..	62,078	84,721	146,799	2,76,920
„	1908-09	..	58,780	84,123	142,903	2,35,803
„	1907-08	..	61,245	83,171	144,416	2,36,966
„	1906-07	..	57,710	77,075	134,785	2,31,036
„	1905-06	..	63,752	72,776	136,528	2,40,606

(*a*) Includes Rs. 43,742 on account of the Mergui Rubber Plantation.

APPEN

[*Vide* para

Outturn of For

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
1	2	3	4	5	6	7
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal	18,297,203	1,98,131	16,663,910	1,68,899	1,135	39
United Provinces ..	16,008,085	6,58,890	370,284	3,728	19,276	3,106
Punjab	9,609,041	2,73,380	17,422, 807	3,37,214	889,582	44,140
Burma	12,830,152	3,30,940	..	..	35,925,756	4,50,925
Eastern Bengal and Assam.	6,733,719	2,04,092	..	..	11,924,161	6,71,907
Central Provinces ..	22,088,056	14,05,778	..	..	..	..
Coorg	181,828	22,448	235,810	275	..	..
North-West Frontier Province.	873,731	22,391	..	..	..	..
Ajmer	521,140	15,833	..	44	..	..
Baluchistan	34,429	29,975	..	..	277,921	52
Andamans	891,805	2,300 (*a*)	..	..	714,371	7,117
Madras	17,892,410	19,25,774	..	..	(*b*) 7,232,216	(*b*) 51,027
Bombay	42,622,948	14,83,013	871, 154	..	..	..
Total 1909-10 ..	148,584,547	65,72,945	35,563,965	5,10,160	56,984,418	12,28,313
„ 1908-09 ..	Full details not available.					
„ 1907-08 ..						
„ 1906-07 ..						
„ 1905-06 ..						

(*a*) Includes cost of 81,140

(*b*) Outturn of reserved and

(*c*) The area of land from which

DIX XII

graph 30.]

est produce.

Total		AVERAGE OUTTURN PER SQUARE MILE.							
		Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and feul.	Minor produce.	Timber and fuel.	Minor produce.
8	9	10	11	12	13	14	15	16	17
C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
34,962,248	3,67,069	4,321	47	6,014	61	..	..	4,991	52
16,397,645	6,65,724	3,902	161	12,343	124	459	74	3,928	159
27,921,430	6,54,734	4,346	124	3,345	65	668	33	3,190	75
48,755,908	7,81,865	499	13	..	..	318	4	352	6
18,657,880	8,75,999	1,040	32	..	..	524	30	638	30
22,088,056	14,05,778	1,030	66	..	..	..	..	1,030	66
417,638	22,723	350	43	..	..	..	..	803	44
873,731	22,391	3,702	95	..	..	..	..	3,702	95
521,140	15,877	3,670	111	..	..	..	..	3,670	111
312,350	30,027	119	104	..	..	560	1	398	38
1,606,176	9,417	5,539	14	..	..	399	4	823	5
25,124,626	19,76,801	953	103	..	..	(c)	(c)	(d)	(d)
43,494,102	14,83,013	3,493	122	1,089	..	..	..	3,345	114
241,132,930	83,11,418	1,540	68	4,035	58	406	9	982	34
232,035,865	79,00,028	Full details not available.						960	33
234,982,123	82,67,161							996	35
222,146,948	75,66,292							925	32
246,334,840	69,19,497							1,054	27

bamboos from reserved and unreserved lands in the Southern Circle.

unre ser ved lands.

revenue has been derived cannot be estimated.

APPEN

[*Vide* para

FOREST PRODUCE REMOVED

Part I.—Tim

PROVINCE.	TIMBER.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	32,199	4,526,776	15,075	199,115	4,773,165
United Provinces ..	77,902	4,522,034	47,022	288,935	4,935,893
Punjab	314,183	3,075,203	39,252	795,563	4,224,201
Burma	2,862,549	26,784,000	1,015,440	1,002,970	31,664,959
Eastern Bengal and Assam	488,984	5,212,068	572,017	400	6,273,469
Central Provinces ..	625,485	3,663,235	127,624	45,727	4,462,071
Coorg	126,434	210,954	..	..	337,388
North-West Frontier Province	11,628	552,406	10,695	11,666	586,395
Ajmer	..	580	..	3,185	3,765
Baluchistan	936	3,258	9,737	..	13,931
Andamans	374,378	47,514	33,720	47,607	503,219
Madras	917,164	(a) 2,486,273	149,969	93,422	(a)3,646,828
Bombay	902,246	3,431,994	110,173	120,900	4,565,313
Total 1909-10 ..	6,734,088	54,516,295	2,130,724	2,609,490	65,990,597
„ 1908-09 ..	6,758,266	53,274,103	1,814,338	2,563,187	64,409,894
„ 2907-08 ..	7,823,674	52,965,071	2,112,544	2,464,266	65,365,555
„ 1906-07 ..	8,719,273	45,411,733	1,325,357	2,433,669	57,890,032
„ 1905-06 ..	10,296,310	50,836,317	1,758,952	4,783,137	67,674,716

(a) Exclusive of 12,800 cubic

(b) Exclusive of 17,692

DIX XIII.

graph 27.]

BY DIFFERENT AGENCIES.

ber and Fuel.

Fuel.				
By Government. (7)	By purchasers. (8)	By free grantees. (9)	By right holders. (10)	Total. (11)
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
23,106	16,164,585	14,238	13,987,154	30,189,083
566,678	7,816,769	136,930	2,941,375	11,461,752
801,612	3,373,771	128,645	19,393,201	23,697,229
811,186	15,469,901	76,369	733,493	17,090,949
16,480	6,305,548	4,465,298	1,597,085	12,384,411
1,019,586	14,318,561	757,509	1,530,329	17,625,985
11,150	69,100	..	..	80,250
57,606	179,881	15,069	34,980	287,336
211,733	298,712	6,930	..	517,375
28,431	269,988	..	..	298,419
675,980	33,600	269,760	123,617	1,102,957
13,953,682	(b) 7,365,192	4,312	154,612	(b) 21,477,798
4,236,481	19,086,358	36,169	15,569,781	38,928,789
22,413,511	90,751,966	5,911,229	56,065,627	175,142,333
20,104,263	94,238,730	6,157,792	47,125,156	167,625,971
21,546,742	92,015,666	7,653,314	48,400,846	169,616,568
20,725,926	92,222,166	5,991,867	45,316,957	164,256,916
20,195,946	88,007,122	6,453,358	56,928,362	171,484,788

feet obtained by confiscation.

cubic feet obtained by confiscation.

APPENDIX

[*Vide* paragraphs

FOREST PRODUCE REMOVED

Part II.—Value of

PROVINCE. (1)	BAMBOOS. By Government. (2)	By purchasers. (3)	By free grantees. (4)	By right-holders. (5)	Total. (6)	GRA By Government. (7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	11,325	30,323	57	5,273	46,978	..
United Provinces	586	1,49,607	1	1,211	1,51,405	11
Punjab	1,457	5,389	..	58	6,904	37
Burma	338	2,17,767	13	41,632	2,59,750	..
Eastern Bengal and Assam	176	68,324	3,972	9,125	81,597	..
Central Provinces	5,944	1,81,453	3,091	9,615	2,00,103	5,330
Coorg	..	973	..	..	973	..
North-West Frontier Province ..	..	..	..	..	..	..
Ajmer	14	368	..	..	382	2,052
Baluchistan	..	..	..	..	..	..
Andamans	14	60	281	390	745	..
Madras	95,431	1,87,113	1,552	62	2,84,158	8,238
Bombay	542	85,250	327	35,693	1,21,812	..
Total 1909–10 ..	1,15,827	9,26,627	9,294	1,03,059	11,54,807	15,668
„ 1908-09 ..	1,10,111	7,50,323	..	(*a*)1,00,851	9,61,285	
„ 1907–08 ..	1,39,095	7,51,533	..	(*a*)2,37,292	11,27,920	Includ
„ 1906-07 ..	1,20,174	6,93,669	..	(*a*)1,62,430	9,76,273	
„ 1905–06 ..	65,573	7,67,157	..	(*a*) 79,895	9,12,625	

(*a*) Includes free grants.

XIII—*contd.*

28 and 29 .]

BY DIFFERENT AGENCIES.

Minor Forest Produce.

ZING AND FODDER GRASS.				OTHER MINOR PRODUCE.				
By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By righgt holders.	Total.
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
27,694	741	72,623	1,01,058	3,540	1,59,461	5,685	50,347	2,19,033
1,34,009	21,736	60,496	2,16,252	75,570	2,18,241	1,954	2,302	2,98,067
1,70,464	1,271	4,01,920	5,73,692	10,538	18,820	5	44,775	74,138
9,090	11,353	1,40,458	1,60,901	43,885	2,61,022	82	56,225	3,61,214
76,437	1,85,858	22,828	2,85,123	61,627	2,18,207	2,29,445	..	5,09,279
8,95,099	9,356	24,458	9,34,243	14,640	2,40,071	4,077	12,644	2,71,432
906	..	..	906	..	20,844	..	..	20,844
11,562	8,378	626	20,566	1,689	29	7	100	1,825
1,790	90	9,992	13,924	697	855	19	..	1,571
1,240	..	27,314	28,554	20	841	..	612	1,473
..	..	..	..	716	425	2,866	4,665	8,672
7,69,618	135	2,019	7,80,010	61,125	8,25,296	1,935	24,277	9,12,633
4,21,998	6,718	49,702	4,78,418	74,700	1,43,832	2,000	6,62,251	8,82,783
25,19,907	2,45,636	8,12,436	35,93,647	3,48,747	21,07,944	2,48,075	8,58,198	35,62,964
				2,95,435	45,90,483	4,79,059	15,73,766	69,38,743
ded in columns 12-16				3,32,571	46,53,786	7,68,135	13,84,749	71,39,241
				2,73,317	44,87,292	4,05,967	14,23,443	65,90,019
				4,85,101	41,74,894	4,37,067	9,09,810	60,06,872

APPENDIX XIV.

[*Vide* paragraph 31.]

Exports of Forest Produce.

Articles of Forest Produce.	Quantity in tons of 20 cwt. in the case of teak, cubic tons.		Valuation at port of shipment in 1909-10,	
	Average of 5 years 1904-05 to 1908-09.	In 1909-10.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc	192	81	5,09,904	6,295
Lac .. Button	1,842	2,473	25,40,259	1,027
Lac .. Shell	12,177	23,053	2,46,42,640	1,069
Lac .. Stick, seed and other kinds ..	1,256	2,214	5,33,819	241
Cutch and gambier	3,696	2,040	6,76,706	332
Myrabolams	65,163	73,355	60,00,413	82
Cardamoms	103	181	4,57,547	2,528
Sandal, Ebony and other ornamental woods ..	(*a*)	(*a*)	8,46,805	..
Teak	42,127	35,628	54,24,433	152
Other timbers (excluding firewood) ..	4,585	5,202	4,64,191	89
	Total in 1909-10 ..		4,20,96,717	
	,, 1908-09 ..		(*b*) 4,06,20,228	
	,, 1907-08 ..		5,63,69,672	
	,, 1906-07 ..		4,96,50,953	
	,, 1905-06 ..		4,69,17,676	

(*a*) Quantity (whether by weight or measurement) not recorded.
(*b*) Corrected figure. Includes "other timbers" previously excluded.

APPENDIX XV.

[*Vide* paragraphs 32 to 38.]

Estimated value of Forest Produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Grass and grazing.	Other minor produce.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	12,488	68,273	4,565	(a) 79,624	47,596	2,12,546
United Provinces	42,093	46,186	1,212	69,709	4,438	1,63,638
Punjab	57,024	2,14,914	..	4,06,862	44,838	7,23,638
Burma	2,28,602	13,251	41,977	1,51,410	52,211	4,87,851
Eastern Bengal and Assam ..	29,401	81,875	13,097	2,08,686	2,29,445	5,62,504
Central Provinces	14,159	57,268	13,617	98,765	15,265	1,99,074
Coorg	..	..	..	..	..	..
North-West Frontier Province ..	2,032	1,016	..	9,004	107	12,159
Ajmer	348	170	..	9,919	19	10,456
Baluchistan	(b) 893	..	..	27,314	612	28,819
Andamans	1,791	8,268	671	..	7,531	18,261
Madras	53,070	3,136	1,624	2,354	26,012	86,196
Bombay	1,49,803	7,79,269	36,020	9,22,033	2,79,025	21,66,150
Total 1909-10 ..	5,91,704	12,73,623	1,12,783	19,86,080	7,07,099	46,71,292
„ 1908-09 ..	4,95,943	16,46,785	1,00,851	13 50,711	10,03,160	45,97,450
„ 1907-08 ..	5,12,037	16,42,333	2,37,292	18,85,296	6,76,361	49,53,319
„ 1906-07 ..	3,70,133	6,51,011	1,62,430	16,59,343	5,62,515	34,05,432
„ 1905-06 ..	4,21,470	7,68,713	79,895	17,16,125	5,09,870	34,96,073

(*a*) Includes minor produce under free grants.
(*b*) Estimated figure.

APPENDIX XVI.

[*Vide* paragraphs 32 to 38.]

Details of Revenue and Expenditure for the Forest year.

					Rs.	
Gross Receipts ..	(*a*) Wood				1,97,76,654	..
	(*b*) Minor forest produce				20,57,471	..
	(*c*) Forest stamps and commutation fees for forest produce ..				1,42,485	..
	(*d*) Grazing				25,51,191	..
	(*e*) Revenue from forests not managed by Government ..				4,25,341	..
	(*f*) Miscellaneous				10,72,652	..
				Total Revenue ..	2,60,25,794	..
Expenditure ..	A. Recurring ..	(*a*) Administration.	(*i*) Superior Staff		29,36,884	..
			(*ii*) Subordinate Staff (including Rangers, Foresters and Guards).		25,77,994	..
			(*iii*) Office Establishments (including Contingencies).		15,33,621	..
		(*b*) Working.	(1) Extraction		34,78,423	..
			(2) Roads and Buildings ..		13,65,555	..
			(3) Fire-protection		6,60,534	..
			(4) Cultural operations ..		7,77,055	..
			(5) Live-stock, stores and plant..		4,33,544	..
			(6) Working-Plans		83,521	..
			(7) Rent for leased forests ..		2,63,405	..
			(8) Miscellaneous		1,79,404	..
		(*c*) Expenditure on realization of revenue from forests not managed by Government.			31,292	..
		(*d*) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute.			1,96,174	..
				Total ..	1,45,17,406	..
	B. Extraordinary	(*e*) Forest Settlement			1,81,427	..
		(*f*) Forest Survey			85,104	
		(*g*) Forest Demarcation			1,36,717	..
				Total ..	4,03,248	..
				GRAND TOTAL EXPENDITURE	1,49,20,654	..
				Net Revenue ..	1,11,05,140	..

APPEN

[*Vide* para

Sum mary of Revenue and Expenditure of the

Budget Heads.		Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Eastern Bengal and Assam.
1		2	3	4	5	6	7
REVENUE.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Timber and other produce removed from the forests by Government agency.		5,184	28,370	1,83,457	2,15,754	26,43,361	4,32,644
II. Timber and other produce removed from the forests by consumers or purchasers.		5,448	10,16,733	19,94,848	7,16,789	60,51,922	8,94,166
III. Drift and waif wood and confiscated forest produce.		..	2,221	18,685	20,136	2,46,823	25,643
IV. Revenue from forests not managed by Government.		..	..	16,441	1,880	2,78,966	1,07,526
V. Miscellaneous		..	33,316	87,733	78,074	1,37,005	74,753
Total Revenue	(a)	10,632	10,80,640	23,01,164	10,32,633	93,58,077	15,34,732
EXPENDITURE							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forest by Government agency.		143	8,276	1,37,694	55,696	8,05,076	1,63,251
II.—Timber and other produce removed from the forests by consumers or purchasers.		..	1,70,101	45,247	5,854	1,11,580	16,825
III.—Drift and waif wood and confiscated forest produce.		..	639	4,143	9,268	1,19,410	1,647
IV.—Revenue from forests not managed by Government.		..	..	4,095	..	..	24,082
V.—Rent of leased forests and payments to shareholders in forests managed by Government.		..	..	1,09,089	41,384	2,893	51,621
VI.—Live-stock, stores, tools and plant.		..	15,656	22,965	13,875	88,887	31,558
VII.—Communications and buildings.		..	69,330	1,77,223	86,285	2,59,561	1,46,510
VIII.—Demarcation improvement and extension of forests.		286	44,831	1,52,662	50,414	5,59,929	71,549
IX.—Miscellaneous		..	7,391	19,472	6,762	28,159	8,467
Total A.—Conservancy and Works.	(b)	429	2,53,224	6,72,590	2,69,538	19,75,495	5,15,510
B.—Establishments.							
I.—Salaries	(d)	1,03,076	2,76,410	4,28,792	2,97,253	14,13,586	4,08,124
II.—Travelling Allowances ..	(c)	430	48,183	66,172	61,267	2,16,257	64,411
III.—Contingencies	(c)	397	13,282	41,754	39,694	78,280	24,496
Total B.—Establishments ..		1,03,903	3,37,875	5,36,718	3,98,214	17,08,123	4,97,031
Grand Total of Expenditure		1,04,332	5,91,099	12,09,308	6,67,752	36,83,618	10,12,541
Surplus ..		..	4,89,541	10,91,856	3,64,881	56,74,459	5,22,191
Deficit		93,700	..	..	..	..	..
Percentage of surplus to gross revenue.		..	45	47	35	61	34
Net revenue per square mile of forest area under control of Forest Department.		..	69	261	42	41	18

(*a*) Represents revenue derived from Indore and Bangalore.
(*b*) „ expenditure on account of „ „ „
(*c*) „ „ „ „ „ „
(*d*) Includes Rs. 1,976„ „ „

DIX XVII.

graphs 32 to 38].]

Forest Department in India for the financial year 19 .

Central Provinces.	Coorg.	North-West Frontier Province.	Ajmer.	Baluchistan.	Andaman	Imperial Forest College and Research Institute.	Forest Survey (Imperial).	Madras.	Bombay.	TOTAL.
8	9	10	11	12	13	14	15	16	17	18
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1,16,442	1,59,160	80,786	8,891	5,639	2,44,592	..	..	15,51,965	12,68,379	69,44,624
18,62,217	41,967	80,442	14,139	4,300	7,991	..	..	24,19,983	23,66,843	1,74,77,788
1,655	..	226	4	5	..	..	..	15,237	4,204	3,34,839
286	..	4,803	..	8,208	..	..	..	..	7,231	4,25,341
97,740	12,002	7,048	956	577	6,894	4,909	..	1,91,196	1,10,999	843,202
20,78,340	2,13,129	1,73,305	23,990	18,729	2,59,477	4,909	..	41,78,381	37,57,656	2,60,25,794
35,831	18,086	16,713	3,220	5,112	1,20,850	..	..	8,53,395	4,89,023	27,12,366
1,19,824	..	250	127	..	..	..	..	1,26,433	95,574	6,28,815
6	..	4	..	..	..	..	..	1,869	256	1,37,242
..	..	..	..	222	..	..	..	..	..	28,399
..	..	8,139	..	..	..	..	..	15,564	37,608	2,66,298
45,324	7,912	828	135	141	22,543	14,157	..	1,70,332	13,388	4,47,701
2,30,224	3,080	9,933	1,307	195	5,178	3,823	..	2,64,548	1,12,181	13,69,378
1,86,680	14,349	3,516	1,749	442	5,189	..	41,062	6,35,068	1,56,632	19,24,358
20,449	1,123	3,386	212	24	3,377	11,736	..	7,579	73,003	1,91,140
6,38,338	44,550	42,769	6,750	6,136	1,57,137	29,716	41,062	20,74,788	9,77,665	77,05,697
7,97,602	53,363	26,652	10,428	16,021	32,985	1,30,106	..	9,71,048	8,99,640	58,65,086
79,264	7,573	5,025	1,400	2,751	3,654	14,777	..	1,99,881	1,30,492	9,01,537
71,648	2,336	2,945	694	1,641	383	21,575	..	93,918	55,291	4,48,334
9,48,514	63,272	34,622	12,522	20,413	37,022	1,66,458	..	12,64,847	10,85,423	72,14,957
15,86,852	1,07,822	77,391	19,272	26,549	1,94,159	1,96,174	41,062	33,39,635	20,63,088	1,49,20,654
4,91,488	1,05,307	95,914	4,718	..	65,318	..	..	8,38,746	16,94,568	1,11,05,140
..	..	..	..	7,820	..	1,91,265	41,062	..	..	..
24	49	55	20	..	25	..	..	20	45	43
23	203	406	33	..	33	..	..	43	130	..

APPEND

[*Vide* paragraphs

Revenue, Expenditure and Surplus of the Forest Depart

(I) REV

Provinces	1[illegible]-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial* .. .	14,705	4,186	4,847	4,017	4,759	6,370	6,688	5,240	2,680	4,980	2,690	4,100	19,130
Bengal	5,97,432	6,53,634	6,57,794	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710	13,70,850	11,89,280
United Provinces .	14,61,45[illegible]	15,73,556	12,47,454	14,62,802	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860	16,58,250	16,01,340	14,44,820	13,86,670
Punjab	8[illegible],419	11,27,277	7,86,036	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500	11,07,720	10,68,470
Burma	20,2[illegible],859	21,06,741	25,15,773	41,89,233	49,40,786	43,21,968	41,85,414	56,60,000	57,85,100	54,36,780	56,95,330	63,78,950	72,15,260
Eastern Bengal and Assam	1,[illegible]6,656	2,12,011	2,67,312	3,03,882	3,79,498	3,26,793	3,36,129	3,82,830	4,88,500	4,35,090	4,25,030	4,36,440	3,84,820
Central Provinces .	11,57,[illegible]76	12,84,322	15,00,412	15,88,382	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140	11,80,400
Coorg . .	8[illegible],186	99,291	1,27,028	1,36,183	92,753	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910
North-West Frontier Provinces.	..	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer .. .	9,697	11,274	14,293	13,574	11,592	15,266	19,799	14,890	14,620	12,340	15,640	12,370	15,540
Baluchistan ..	14,962	14,081	14,063	5,668	13,897	15,724	20,609	19,030	20,730	16,300	14,930	15,460	15,040
Andamans	23,944	31,870	1,04,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710
Imperial Forest College and Research Institute.	273	415	777	449	1,237	1,184	1,788	1,980	1,990	2,790	4,310	2,850	2,890
Forest Surveys (Imperial)	2[illegible]2	241	40	315	220	2,104	257	520	240	80	510	400	220
Total ..	66,40,409	71,18,899	72,40,791	95,33,255	1,06,08,249	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14,52,140	1,25,20,470	1,30,42,340
Madras	11,98,650	12,46,911	13,74,920	15,15,006	15,57,627	17,95,408	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	25,03,330	21,38,490
Bombay	33,66,286	30,32,676	30,32,577	28,51,190	31,37,696	32,88,220	32,84,649	32,09,550	37,94,350	37,50,030	35,36,670	30,32,710	26,16,660
Grand total ..	1,12,05,345	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,36,510	1,77,95,490

(II) EXPEND

Imperial*	88,245	86,299	78,626	86,199	81,311	85,414	65,788	1,07,270	80,840	84,950	80,410	78,960	84,300
Bengal	3,70,399	4,22,781	3,90,368	3,76,270	3,98,150	4,14,004	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070	6,90,040	6,53,440
United Provinces ..	9,74,519	9,19,580	8,30,748	8,44,544	9,63,151	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860	9,06,340	9,17,850
Punjab	6,75,483	7,16,510	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7,23,300	7,71,940
Burma	11,50,052	10,78,018	11,53,846	20,17,073	16,06,644	13,88,789	16,98,980	18,65,000	18,62,500	19,17,990	19,33,600	21,28,820	21,96,610
Eastern Bengal and Assam	2,11,494	2,12,287	2,26,892	2,09,905	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010	2,88,830
Central Provinces ..	6,47,614	7,16,439	7,78,802	8,62,864	8,79,458	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860	11,65,490
Coorg	65,690	74,088	72,629	80,175	72,420	65,818	86,860	73,090	86,890	86,140	85,840	71,630	87,020
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	16,469	20,744	18,897	15,676	12,701	12,720	13,986	15,000	15,900	14,900	15,730	22,010	14,670
Baluchistan	15,799	17,836	17,753	15,994	17,962	29,450	30,497	55,620	63,730	40,910	41,770	29,770	27,330
Andamans	37,015	25,769	62,679	57,295	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600	2,47,340
Imperial Forest College and Research Institute.	24,230	30,831	33,129	32,961	29,646	35,191	2,31,210 44,347	50,400	65,530	65,980	67,950	67,380	60,920
Forest Surveys (Imperial)..	19,180	28,348	32,868	22,164	21,188	24,324	26,882	2,260	27,900	29,840	29,950	31,970	33,950
Total ..	42,97,118	43,49,560	43,75,119	52,15,005	50,80,590	49,46,325	54,38,471	56,70,870	59,05,990	59,19,020	59,28,610	65,41,690	65,49,690
Madras	9,37,972	11,53,122	11,29,212	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,300	15,72,850
Bombay	18,39,461	19,52,910	19,44,005	16,93,982	17,70,691	18,69,887	19,31,457	19,04,970	20,71,940	20,67,920	19,58,390	19,69,160	20,73,190
Grand total ..	70,74,551	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730

(III)

Imperial*	—73,537	—82,113	—73,779	—82,182	—76,552	—79,044	—59,100	—1,02,030	—78,160	—79,970	—77,720	—74,860	—65,170
Bengal	2,27,033	2,30,853	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,98,280	4,52,640	6,80,810	5,35,840
United Provinces ..	4,86,076	6,53,976	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	5,38,480	4,68,820
Punjab . ..	1,74,936	4,10,767	1,09,024	4,51,883	2,75,858	1,81,329	3,70,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530
Burma	8,72,907	10,28,723	13,61,927	21,72,160	33,34,142	29,33,179	24,86,434	38,55,000	39,22,600	35,18,790	37,62,230	42,50,130	50,18,650
Eastern Bengal and Assam	—11,838	—276	40,420	93,077	1,22,369	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990
Central Provinces ..	7,09,762	5,67,853	7,21,610	7,25,518	7,17,264	7,96,095	8,68,480	5,81,240	4,30,840	2,54,330	2,93,430	[98,280	14,910
Coorg	23,696	25,203	54,399	56,008	20,333	69,743	96,037	1,07,590	86,900	66,910	49,410	21,370	43,890
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	—6,722	—9,470	—4,604	—2,102	—1,109	2,546	5,813	—110	—1,280	—2,060	—90	—9,640	870
Baluchistan	—837	3,755	—3,690	—10,326	—4,065	—13,726	—9,888	—36,590	—43,000	—24,610	—26,840	—14,310	—12,290
Andamans	—13,091	6,101	41,383	48,780	67,220	28,274	92,429	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370
Imperial Forest College and Research Institute.	—23,966	—30,416	—32,362	—32,512	—28,409	—34,007	—42,559	—48,420	—63,540	—63,190	—63,640	—64,530	—58,030
Forest Survey (Imperial).	—18,078	—28,107	—32,828	—21,849	—20,968	—22,220	—26,625	—21,640	—27,660	—29,760	—29,440	31,570	—33,730
Total ..	23,43,291	27,69,339	28,65,642	43,18,250	55,27,659	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78,780	64,92,650
Madras	2,60,678	93,789	2,45,708	2,94,212	3,95,390	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960	7,69,030	5,63,640
Bombay	15,26,925	10,79,766	10,83,572	11,56,228	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550	5,43,470
Grand total ..	41,30,794	39,42,894	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99,760

* Includes pay of Inspector-General of Forests, Assistant Inspector General of Forests, Office establishment and undistributable and petty local

IX XVIII.

32 to 38.]

ment throughout India during the 25 financial years from 1885-86 to 1909-10.

ENUE.

1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	PROVINCE.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
17,540	6,090	2,463	3,484	3,659	7,455	3,768	7,255	..	7,666	8,189	10,632	Imperial*.
9,72,310	11,38,910	12,33,339	12,92,237	12,56,247	10,65,523	11,67,472	11,18,542	10,65,359	11,97,650	11,84,845	10,80,640	Bengal.
15,68,040	16,14,740	15,65,463	17,15,508	20,25,324	22,80,446	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	United Provinces.
14,74,430	14,00,770	13,50,842	14,47,558	15,86,408	17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,633	Punjab.
83,50,890	78,12,050	80,54,444	58,73,938	67,39,053	82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	91,92,032	93,58,077	Burma.
3,98,180	5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,34,732	Eastern Bengal and Assam.
14,34,940	12,97,490	12,65,614	15,79,116	16,84,428	19,98,032	20,13,459	24,49,131	24,01,159	22,90,128	20,78,162	20,78,340	Central Provinces and Berar.
1,55,070	1,62,410	1,37,596	1,70,242	1,90,730	2,24,031	1,93,087	2,45,419	2,35,909	2,74,756	2,24,330	2,13,129	Coorg.
..	..	..	13,012	1,01,123	1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	N.W. Frontier Province.
14,420	10,270	10,646	6,865	9,736	13,884	17,207	15,002	18,335	20,864	27,615	23,990	Ajmer.
14,920	17,060	16,956	14,712	19,336	18,363	22,555	21,481	21,195	24,829	23,305	18,729	Baluchistan.
2,29,460	2,60,600	2,77,886	2,66,903	3,26,035	4,32,381	6,20,796	5,82,511	6,07,027	2,01,822	2,02,018	2,59,477	Andamans.
2,360	3,210	3,697	3,545	3,252	3,038	3,557	3,080	4,579	6,137	4,680	4,009	Imperial Forest College.
200	420	327	473	3,034	431	..	..	..	..	..	..	Forest Surveys (Imperial).
1,46,32,850	1,42,92,120	1,44,68,704	1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	Total.
21,10,520	23,02,290	23,40,170	25,43,430	26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	38,03,830	38,90,919	41,78,381	Madras.
22,95,150	24,15,200	29,61,529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,993	34,22,481	36,46,177	35,87,356	37,57,656	Bombay.
1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	2,55,56,799	2,60,25,794	Grand Total.

ITURE.

85,460	96,550	83,578	79,539	85,017	89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	Imperial.*
4,86,320	5,45,210	5,70,806	6,57,131	6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,081	5,91,099	Bengal.
9,72,030	9,42,380	9,63,439	10,03,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,04,013	12,22,436	12,09,308	United Provinces.
8,55,340	12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	12,63,664	11,44,403	11,76,696	8,51,627	6,67,752	Punjab.
24,26,190	24,47,440	26,54,717	26,46,457	28,90,263	33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	Burma.
3,05,360	3,57,140	3,47,972	3,29,112	3,27,498	4,25,484	5,03,656	5,93,910	7,07,860	8,00,373	8,91,349	10,12,541	Eastern Bengal and Assam.
11,09,400	12,75,820	11,65,866	12,00,904	12,57,288	12,80,066	13,20,615	13,07,153	13,42,878	15,83,407	17,53,307	15,86,852	Central Provinces and Berar.
80,100	74,220	70,905	82,333	89,437	92,191	83,820	95,748	1,02,855	1,04,819	99,595	1,07,822	Coorg.
..	..	..	19,510	54,086	60,603	74,958	95,258	93,650	88,400	81,413	77,391	N. W. Frontier Province
16,300	15,350	16,782	15,027	16,377	16,680	15,641	17,131	16,715	18,188	19,916	19,272	Ajmer.
27,760	28,680	29,254	24,480	23,240	21,697	24,672	25,743	26,322	31,258	36,586	26,549	Baluchistan.
1,38,400	1,40,940	1,40,137	2,04,667	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	Andamans.
63,370	73,550	71,238	76,290	66,338	59,339	61,424	80,669	1,37,486	1,58,038	1,83,191	1,96,174	Imperial Forest College.
33,970	33,980	33,991	33,730	33,985	33,935	28,229	30,044	30,389	27,060	39,128	41,062	Forest Surveys (Imperial).
66,00,000	72,42,720	70,36,028	73,17,154	77,37,338	86,40,126	90,77,954	98,65,826	95,92,956	97,76,649	97,64,900	95,17,931	Total.
15,94,670	16,53,530	17,15,431	17,09,554	18,35,552	17,50,930	19,86,098	22,66,602	24,80,660	27,80,857	29,17,261	33,39,635	Madras.
18,39,250	21,28,430	24,08,581	17,19,680	16,76,441	17,75,037	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	20,63,088	Bombay.
1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,933	1,47,26,034	1,49,20,054	Grand Total.

SURPLUS.

—67,920	—90,460	—81,115	—76,055	—81,358	—81,890	—79,290	—76,512	—95,472	—92,538	—95,994	—93,700	Imperial.*
4,85,990	5,93,700	6,62,533	6,35,106	6,18,233	3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	Bengal.
5,96,090	6,72,360	6,02,024	7,06,769	10,11,326	11,99,008	10,05,735	10,28,246	11,96,013	12,15,732	9,52,970	10,91,856	United Provinces.
6,19,010	1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	4,37,165	3,64,881	Punjab.
59,24,700	53,64,610	53,99,727	32,27,481	38,48,790	49,16,131	55,12,832	63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	Burma.
92,820	2,10,960	2,01,549	1,83,851	2,52,701	2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	Eastern Bengal and Assam.
3,25,540	21,670	99,748	3,78,212	4,27,140	7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	4,91,488	Central Provinces and Berar.
74,970	88,190	66,691	87,909	1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	Coorg.
..	..	..	—6,498	47,038	41,230	16,033	33,271	89,564	1,50,090	41,369	95,914	N.W. Frontier Province.
—1,880	—5,080	—6,136	—9,062	—6,641	—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	Ajmer.
—12,840	—11,610	—12,298	—9,768	—3,904	—3,334	—2,117	—4,262	—5,127	—6,429	—13,281	—7,820	Baluchistan.
91,060	1,19,660	1,37,749	62,236	44,333	1,66,260	2,78,365	2,46,526	3,11,891	62,555	21,077	65,318	Andamans.
—61,010	—70,340	—67,541	—72,745	—63,086	—56,301	—57,867	—77,589	—1,32,907	—1,51,901	—1,78,511	—1,91,265	Imperial Forest College.
—33,680	—33,560	—33,664	—33,257	—30,951	—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	Forest Surveys (Imperial.
80,32,850	70,49,400	74,32,766	55,83,402	67,91,227	81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,326	Total.
5,15,850	6,48,760	6,24,739	8,33,876	7,78,267	9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	Madras.
4,55,900	2,86,770	5,52,948	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	Bombay.
0,04,600	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	14,27,687	1,13,50,046	1,07,30,765	1,11,05,140	Grand Total.

items and revenue and charges on account of Indore and Bangalore. Excludes Home charges.

G. M. Press, Simla.—No. 200 R. & A.D—14-11-11—425.—M.D.

STATISTICS

RELATING TO

FOREST ADMINISTRATION

IN

BRITISH INDIA

1910-11

SIMLA:
PRINTED AT THE GOVERNMENT MONOTYPE PRESS.
1912.

NOTICE.

These statistics were formerly included in the Inspector General of Forests' annual Review of Forest Administration in British India. In future the Statistics only will be published annually, and the progress of Forest Administration in India will be reviewed quinquennially, commencing with the period ending with the year 1913-14.

A few diagrams, illustrative of the principal results, are appended to the present issue of the statistics.

SIMLA;
The 1st October 1912.

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STATEMENT I.

Area of all forest lands.

Province. Name. (1)	Area in square miles. (2)	Forest area in square miles. Reserved. (3)	Protected. (4)	Unclassed State. (5)	Total. (6)	Percentage of forests to whole area of Province. (7)	Remarks. (8)
Bengal	115,664	(a) 4,240	(b) 2,771	..	7,011	6·0	(a) Excludes 14 square miles of reserved forests not under the management of the Forest Department.
United Provinces ..	106,773	(c) 4,114	(d) 30	30	4,174	3·9	(b) Excludes 927 square miles not under the control of the Forest Department.
Punjab	97,211	(e) 2,207	(f) 5,207	1,319	8,733	8·9	(c) Includes 156 square miles of leased forests.
Burma	169,989	26,077	..	111,150	137,227	80·7	(d) Excludes 9,070 square miles of district forests not under the control of Forest Department.
Eastern Bengal and Assam	93,906	(g) 6,485	4	22,416	28,905	30·7	(e) Includes 365 square miles of leased forests but excludes 110 square miles of Reserved Forests not under the control of the Forest Department.
Central Provinces (including Berar).	99,874	21,384	..	..	21,384	21·4	(f) Excludes 15 square miles not under the control of the Forest Department.
Coorg	1,582	520	..	..	520	32·8	(g) Excludes 6 square miles of reserved forests not under the management of the Forest Department.
North-West Frontier Province.	13,184	(h) 236	(i)	..	236	1·8	(h) Excludes 14 square miles of Military and Civil Reserved forests.
Ajmer	2,767	142	(j)	..	142	5·1	(i) 121 square miles of Civil Protected Forests are not shown.
Baluchistan. (Portions under British Administration.)	46,656	313	..	472	785	1·6	(j) There are only 115 acres of Protected Forests in Ajmer.
Andamans	3,143	156	..	1,796	1,952	62·1	
Madras	142,298	18,629	..	(k) 1,401	20,030	14·0	(k) Reserved lands.
Bombay (including Sind)	123,235	(l) 11,884	(m) 495	..	12,379	10·0	(l) Includes 331 square miles of leased forests and excludes 2,122 square miles of forests in charge of the Revenue Department.
Total 1910-11 ..	1,016,282	96,387	8,507	138,584	243,478	23·9	(m) Includes 325 square miles of leased forests and excludes 548 square miles of protected forests in charge of the Revenue Department.
„ 1909-10 ..	987,990	96,474	8,814	140,263	245,551	24·9	
„ 1908-09 ..	986,144	94,561	8,835	138,378	241,774	24·5	
„ 1907-08 ..	985,938	94,059	8,853	134,897	237,809	24·2	
„ 1906-07 ..	987,749	94,037	9,468	136,633	240,138	24·3	

STATE

Progress in forest

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.					
				Area.			Expenditure incurred.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
Bengal	(a) 4,254	..	4,254	..	..	..	1,929	..	1,929
United Provinces	(a) 3,946	30	3,976	12	..	12	..	..	..
Punjab ..	(a) 1,954	5,222	7,176	..	..	..	..	..	..
Burma ..	(a) 25,713	..	25,713	366	..	366	9,667	..	9,667
Eastern Bengal and Assam.	(a) 6,499	..	6,484	..	..	..	..	..	..
Central Provinces	(a) 17,686	..	17,686	6	..	6	..	..	..
Coorg ..	520	..	520	..	..	..	..	..	..
North-West Frontier Province.	(a) 250	121	371	..	..	..	..	..	..
Ajmer	..	..	..	..	..	..	..	..	..
Baluchistan ..	289	..	289	24	..	24	..	..	..
Andamans ..	161	..	161	..	..	..	..	..	..
Madras ..	(a) 15,498	..	15,498	235	..	235	(b) 80	..	80
Bombay ..	(a) 13,526	908	14,434	200	2	202	..	..	..
Total 1910-11	90,281	6,281	96,862	843	2	845	11,676	..	11,676
„ 1909-10	90,011	6,162	96,173	2,096	..	2,096	13,601	..	13,601
„ 1908-09	(a) 90,915	6,289	97,204	1,217	13	1,230	8,583	..	8,583
„ 1907-08	89,197	6,310	95,507	1,798	..	1,798	7,490	..	7,490
„ 1906-07	87,523	6,151	93,674	1,674	138	1,812	3,151	..	3,151

(a) Corrected area.
(b) Excludes Rs. 10 shown under other accounts.

MENT II.

settlements.

AREA UNDERGOING SETTLEMENT.								
AT COMMENCEMENT OF THE YEAR.			TAKEN IN HAND DURING THE YEAR.			EXPENDITURE INCURRED DURING THE YEAR.		
Reserved. (11)	Protected. (12)	Total. (13)	Reserved. (14)	Protected. (15)	Total. (16)	Reserved. (17)	Protected. (18)	Total. (19)
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
19	..	19	56	..	56	81	..	81
12	..	12	5	..	5	..	..	..
35	205	240	..	..	..	..	..	..
2,843	..	2,843	5,541	..	5,541	14,977	..	14,977
..	..	..	48	..	48	71	..	71
6	..	6	21	..	21	166	..	166
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
16	..	16	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
488	..	488	12	..	12	2,697	..	2,697
17	..	17	9	..	9	..	..	..
3,436	205	3,641	5,692	..	5,692	17,992	..	17,992
3,322	205	3,527	867	..	867	1,12,971	..	1,12,971
5,323	205	5,528	824	..	824	34,326	..	34,326
3,122	205	3,327	3,575	..	3,575	34,188	..	34,188
1,954	205	2,159	2,978	..	2,979	25,108	..	25,108

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	134	3,271	663	4,068	..	1,096	5,164	34	1,880
United Provinces	14	1,501	2,921	4,436	3	1,572	6,011	287	6,574
Punjab	39	1,960	7,754	9,753	20	1,082	10,855	2,060	4,601
Burma	511	3,297	14,790	18,598	1,018	3,720	23,336	8,859	19,249
Eastern Bengal and Assam.	96	1,942	317	2,355	218	2,416	4,989	2,766	12,578
Central Provinces	139	12,505	20,375	33,019	5	2,764	35,788	2,858	18,384
Coorg	..	..	307	307	173	56	536	..	84
North-West Frontier Province.	..	81	696	777	..	139	916	..	812
Ajmer	..	13	233	246	..	158	404	..	16
Baluchistan ..	17	176	251	444	..	77	521	..	5
Andamans ..	..	20	55	75	6	116	197	..	31
Madras ..	549	22,225	12,368	35,142	809	1,765	37,716	16,254	17,038
Bombay ..	443	10,938	25,590	36,971	2,141	3,253	42,365	4,518	4,239
Total 1910-11	1,942	57,929	86,320	146,191	4,393	18,214	168,798	37,636	85,491
" 1909-10	2,527	64,885	78,490	145,967	6,033	18,063	170,063	35,260	92,129
" 1908-09	2,727	61,235	78,594	142,576	6,117	15,576	166,269	46,362	97,774
" 1907-08	2,421	55,439	83,367	141,227	10,653	17,490	169,370	57,006	89,154
" 1906-07	2,611	57,599	83,026	143,256	11,869	16,250	171,375	33,562	70,311

N. B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private and other lands within the forests but not the limits of sub-divisions such as blocks, compartments and coupes.

STATEMENT IV.

Forest survey operations.

Province.	Forest surveyed.	Nature of survey operations. 1st Detail Survey. Area.	1st Detail Survey. Cost rate.	2nd Detail Survey. Area.	2nd Detail Survey. Cost rate.	4th Detail Survey. Area.	4th Detail Survey. Cost rate.	Total area of Detail Survey. 1910-11.	Total area of Detail Survey. Total up to date.	Expenditure of the year including mapping and publishing charges debitable to Forests.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	4,530	..	(a) Includes 89 square miles of Rakhs under the Deputy Commissioners.
United Provinces	Naini Tal ..	..	..	..	..	..	..	..	4,139	347	
	Ramnagar ..	..	..	..	..	..	..	..		84	(b) Includes 37 square miles of "Rakhs" under the Deputy Commissioners.
Punjab	..	(a) 392	17·5	(b) 151	20·6	..	..	546	4,332	..	(c) Linear miles of boundary traverse (Skeleton boundary survey).
Burma	..	..	..	188	50·1	(c) 76	(d)	188	14,320	..	(d) Cost rate not given.
Eastern Bengal and Assam.	..	..	..	26	47·2	..	..	26	2,360	..	(e) Mapping and publishing charges of the Ganjam Sheets.
Central Provinces ..	Berar ..	..	..	81	36·7	(c) 804	(d)	81	(k) 18,996	1,113	(f) Mapping and publishing charges only and excludes Forest Map Office Headquarters charges Rs. 39,171 and the cost borne by the Survey of India.
Coorg	..	..	..	..	..	..	..	..	405	..	(g) Excludes Headquarters charges Rs. 41,165.
North-West Frontier Province.	Hazara ..	..	..	..	..	..	..	..	445	207	(h) Excludes Headquarters charges Rs. 38,943.
Ajmer	..	..	..	..	..	..	..	..	144	..	(i) Excludes Headquarters charges Rs. 30,665.
Baluchistan	..	..	..	..	..	..	..	..	227	..	(j) Excludes Headquarters charges Rs. 32,022.
Andamans	..	..	..	..	..	..	..	..	..	..	(k) Revised figures.
Madras	..	..	..	..	..	..	..	..	15,062	(e) 175	
Bombay	..	..	..	..	..	..	..	..	(k) 12,973	..	
Total 1910-11 ..	..	395	..	446	..	(c) 880	..	841	77,933	(f) 1,926	
„ 1909-10 ..	..	120	..	1,370	..	..	..	(k) 1,490	(k) 77,002	(g) 5,703	
„ 1908-09 ..	..	20	..	1,881	..	(k) 70	..	(k) 1,980	(k) 75,602	(h) 9,935	
„ 1907-08 ..	..	43	..	2,676	..	43	..	2,762	73,622	(i) 6,199	
„ 1906-07 ..	..	..	..	1,648	..	579	..	2,227	70,860	(j) 63,297	

STATEMENT V.

Progress made in working-plans.

Province.	Areas for which Working-plans have been sanctioned by Local Governments.		Areas for which Working-plans are being compiled.		Areas for which Working-plans have still to be taken in hand.	Areas for which Working-plans are not at present required.	Total forest area as in statement I.	Percentage of area under Working-plans to the total forest area.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.		
Bengal	(a) 5,286	396	(b)	(c)	(d) 1,329	..	7,011	75	(a) Revised area excludes 14 square miles of "other Reserves."
United Provinces ..	3,779	..	34	266	95	..	4,174	91	(b) Excludes 3,800 square miles for which revised Working-Plans are under preparation.
Punjab	(e) 4,009	..	(e) 360	(e) 390	(e) 3,974	..	8,733	46	
Burma	(f) 7,241	184	(e) 1,903	512	127,387	..	137,227	5	(c) Excludes 101 square miles for which revised Working-Plans are under preparation.
Eastern Bengal and Assam.	1,460	177	(e) 26	..	4,826	22,416	28,905	5	
Central Provinces ..	(e) 12,640	..	(g) 760	(h) 3,180	2,724	2,080	21,334	59	(d) Excludes 927 square miles of "other Protected forests."
Coorg	(e) 1:0	..	(e) 48	..	342	..	520	25	(e) Revised areas.
North-West Frontier Province.	236	..	..	..	..	..	236	100	(f) Excludes 38 square miles for which a revised Working-Plan is under preparation.
Ajmer ..	140	..	..	..	2	..	142	99	(g) Excludes 1,627 square miles for which revised Working-Plans are under preparation.
Baluchistan ..	..	..	..	..	(e) 313	(e) 472	785	..	
Andamans	..	..	(i) 317	..	1,635	..	1,952	..	(h) Excludes 1,413 square miles for which revised Working-Plans are under preparation.
Madras	(e) 7,790	(j) 120	(e) 2,206	184	(e) 9,728	2	20,030	39	(i) Compiled in 1906-07 but not yet sanctioned or in operation.
Bombay	(e) 6,433	162	(e) 292	109	(e) 4,712	671	12,379	52	(j) Excluesd 49 square miles for whicha rev ised Working-Plan is under preparation.
Total 1910-11 ..	49,144	1,039	5,946	4,641	157,067	25,641	243,478	20	
„ 1909-10 ..	48,104	1,317	5,951	2,292	161,679	26,208	245,551	20	
„ 1908-09 ..	44,848	3,453	5,315	2,378	185,780		241,774	20	
„ 1907-08 ..	42,441	2,711	7,3>7	2,559	182,741	Included in Column 6.	237,809	19	
„ 1906-07 ..	41,586	882	9,061	2,001	186,608		240,138	18	

STATEMENT VI

Expenditure on communications and buildings.

Province.	New Works.		Repairs.		Other Works	Total.
	Buildings.	Roads.	Buildings.	Roads.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	40,618	16,382	12,187	17,228	3,250	89,665
United Provinces	42,127	7,380	21,798	60,273	9,386	1,40,964
Punjab	3,324	71,040	7,622	29,224	2,277	1,13,487
Burma	1,17,311	91,177	52,189	28,706	32,359	3,21,736
Eastern Bengal and Assam	39,228	32,321	28,939	16,009	4,217	1,20,714
Central Provinces ..	56,795	48,017	25,186	23,567	37,022	1,90,587
Coorg	..	40	1,000	1,790	49	2,879
North-West Frontier Province.	3,482	1,777	907	912	67	7,145
Ajmer	363	257	50	26	66	762
Baluchistan	275	..	106	15	190	586
Andamans	900	..	363	1,940	(a) 1,544	4,747
Madras	1,04,846	55,777	43,706	45,025	15,721	2,65,075
Bombay	60,988	24,616	18,429	17,656	20,900	1,42,589
Total 1910-11 ..	4,70,257	3,48,784	2,12,482	2,42,365	1,27,048	14,00,936
" 1909-10 ..	5,37,292	2,45,800	1,92,224	1,93,356	1,31,296	12,99,968
" 1908-09 ..	4,45,273	3,23,560	2,08,284	2,16,620	1,75,987	13,69,724
" 1907-08 ..	4,64,060	3,48,394	1,81,440	2,01,237	1,75,692	13,70,823
" 1906-07 ..	3,61,543	1,96,738	1,62,205	1,93,338	82,089	9,95,913

(a) Cost incurred on temporary tram lines.

STATEMENT VII.

Breaches of forest rules.

Province.	Cases pending from 1909-1910.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
								Convictions.		Acquittals.		Total.		
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Bengal .. A.	21	33	158	22	50	263	284	194	643	27	152	221	795	60
Bengal .. B.	157	3	1,457	622	58	2,140	2,297	2,187	5,499	7	13	2,194	5,512	100
Bengal .. C.	..	111	3	..	1	115	115	..	..	..	..	..	..	..
Bengal Total ..	178	147	1,618	644	109	2,518	2,696	2,381	6,142	34	165	2,415	6,307	160
United Provinces A.	8	8	50	38	20	116	124	98	193	18	63	116	256	8
United Provinces B.	49	8	774	889	32	1,703	1,752	1,657	4,317	..	..	1,657	4,317	87
United Provinces C.	..	34	174	55	8	271	271	..	..	..	..	..	..	..
United Provinces Total ..	57	50	998	982	60	2,090	2,147	1,755	4,510	18	63	1,773	4,573	95
Punjab .. A.	205	16	522	221	96	855	1,060	728	1,615	143	547	871	2,162	179
Punjab .. B.	3	12	2,768	3,934	69	6,783	6,786	6,786	9,587	..	..	6,786	9,587	..
Punjab .. C.	..	176	66	9	1	252	252	..	..	..	..	..	..	..
Punjab Total ..	208	204	3,356	4,164	166	7,890	8,098	7,514	11,202	143	547	7,657	11,749	179
Burma .. A.	261	28	857	34	93	1,012	1,273	860	1,602	146	386	1,006	1,988	207
Burma .. B.	147	12	1,724	75	913	2,724	2,871	2,504	3,754	..	..	2,506	3,754	297
Burma .. C.	..	26	67	1	1	95	95	..	..	..	..	..	..	..
Burma Total ..	408	66	2,648	110	1,007	3,831	4,239	3,364	5,356	146	386	3,512	5,742	504
Eastern Bengal and Assam. A.	43	1	175	30	64	270	313	239	849	41	294	280	1,144	30
Eastern Bengal and Assam. B.	1	8	542	136	167	853	854	852	1,848	..	..	852	1,848	2
Eastern Bengal and Assam. C.	..	11	4	..	..	15	15	..	..	..	..	..	..	..
Eastern Bengal and Assam Total ..	44	20	721	166	231	1,138	1,182	1,091	2,697	41	294	1,132	2,992	32
Central Provinces. A.	33	25	75	81	18	199	232	159	406	49	144	208	550	24
Central Provinces. B.	623	133	3,778	4,234	235	8,380	9,003	8,374	25,745	12	22	8,386	25,767	614
Central Provinces. C.	..	334	161	5	6	506	506	..	..	..	..	..	..	..
Central Provinces Total ..	656	492	4,014	4,320	259	9,085	9,741	8,533	26,151	61	166	8,594	26,317	638
Coorg .. A.	1	1	1	..	2	4	5	4	12	..	..	4	12	1
Coorg .. B.	2	1	8	10	1	20	22	21	54	..	..	21	54	1
Coorg .. C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coorg Total ..	3	2	9	10	3	24	27	25	66	..	..	25	66	2
North-West Frontier Province. A.	41	4	91	39	6	140	181	116	322	19	103	135	425	41
North-West Frontier Province. B.	..	1	539	425	3	968	968	968	1,759	..	..	968	1,759	..
North-West Frontier Province. C.	..	17	37	20	..	74	74	..	..	..	..	..	..	..
North-West Frontier Province Total ..	41	22	667	484	9	1,182	1,223	1,084	2,081	19	103	1,103	2,184	41

STATEMENT VII—*contd.*

Breaches of forest rules—*contd.*

Province.	Cases pending from 1909 1910.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons	Cases.	Persons.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer A.	..	..	1	9	3	13	13	11	13	2	4	13	17	..
Ajmer B.	..	2	174	210	8	392	392	379	656	13	26	392	682	..
Ajmer C.	..	7	..	..	..	2	2	..	..	..	..	..	..	..
Total ..	..	9	175	219	11	407	407	390	669	15	30	405	699	..
Baluchistan .. A.	5	4	37	1	2	44	49	41	68	7	40	48	108	..
Baluchistan .. B.	..	..	17	3	..	20	20	20	36	..	..	20	36	..
Baluchistan .. C.	..	..	1	..	..	1	1	..	..	..	..	..	..	..
Total ..	5	4	55	4	2	65	70	61	104	7	40	68	144	..
Andamans .. A.	..	..	11	..	..	11	11	11	29	..	..	11	29	..
Andamans .. B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Andamans .. C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	..	11	..	..	11	11	11	29	..	..	11	29	..
Madras .. A.	1,855	63	2,858	1,494	303	4,718	6,573	4,338	11,942	685	2,251	5,023	14,193	1,480
Madras .. B.	3,422	72	12,592	6,446	895	20,005	23,427	17,969	40,454	3	3	17,972	40,457	3,758
Madras .. C.	45	907	374	465	20	1,766	1,811	..	..	..	..	..	..	..
Total ..	5,322	1,042	15,824	8,405	1,218	26,489	31,811	22,307	52,396	688	2,254	22,995	54,650	5,238
Bombay .. A.	261	159	593	247	92	1,001	1,352	906	2,361	118	336	1,024	2,697	317
Bombay .. B.	410	150	5,744	7,491	792	14,177	14,587	14,156	27,053	..	..	14,156	27,053	418
Bombay .. C.	39	1,846	2,213	60	47	4,166	4,205	..	..	..	..	..	..	62
Total ..	710	2,155	8,550	7,798	931	19,434	20,144	15,062	29,414	118	336	15,180	29,750	797
Grand Total .. A.	2,734	342	5,429	2,216	749	8,736	11,470	7,705	20,055	1,255	4,320	8,960	24,376	2,347
Grand Total .. B.	4,814	402	30,117	24,475	3,173	58,165	62,979	55,873	120,762	35	64	55,910	120,826	5,277
Grand Total .. C.	84	3,469	3,100	615	84	7,263	7,347	..	..	..	..	..	..	62
Total 1910-11 ..	7,632	4,213	38,646	27,306	4,006	74,164	81,796	63,578	140,817	1,290	4,384	64,870	145,202	(b)7,686
„ 1909-10 ..	7,022	4,526	36,529	27,490	3,597	72,142	79,164	61,597	133,396	1,225	4,012	62,822	138,408	(a) 7,547
„ 1908-09 ..	6,982	3,615	37,238	26,173	4,274	71,300	78,282	60,511	136,237	1,443	5,180	61,954	141,417	7,022
„ 1907-08 ..	6,091	4,679	35,470	25,016	4,528	69,693	75,784	57,602	126,195	1,229	4,708	58,831	130,903	7,131
„ 1906-07 ..	5,833	4,138	33,296	24,809	5,213	67,456	73,289	56,347	124,503	1,511	5,635	57,858	130,138	6,057

N. B. —A. Cases taken into Court.

B. Cases compounded.

C. Undetected cases.

(*a*) Excludes 1,789 cases struck off.

(*b*) Excludes 7,285 undetected cases and 1,955 cases struck off.

STATEMENT VIII.

Area protected from fire.

Province.	Area in Square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected		Average of past 5 years to 1909-10.	1910-11.	
Bengal	2,241	2,214	52·9	2·6	1·2	
United Provinces	3,180	3,123	77·3	4·2	1·8	
Punjab	1,042	1,013	47·2	2·0	2·9	
Burma	7,466	7,188	28·6	4·9	3·7	
Eastern Bengal and Assam ..	(a) 2,761	(a) 2,744	42·6	4·4	0·6	
Central Provinces	11,659	11,284	54·5	4·3	3·2	
Coorg	208	201	40·0	2·2	3·4	
North-West Frontier Province ..	85	83	36·0	9·0	2·4	
Ajmer	141	140	99·3	0·6	0·7	
Madras	(a) 12,602	(a) 12,067	67·6	6·9	4·2	
Bombay	9,327	8,661	78·5	9·1	7·1	
Total 1910-11	50,712	48,718	52·6	5·8	3·9	
„ 1909-10	48,510	45,768	50·3	5·6	5·7	
„ 1908-09	46,432	44,497	49·0	6·3	4·5	
„ 1907-08	45,695	42,577	48·8	7·1	6·8	
„ 1906-07	44,443	41,839	47·2	7·5	5·8	

(a) Includes partially protected areas.

STATEMENT IX.

Causes of forest fires.

Province.	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the Fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		Total.	
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Bengal	5	..	7	3·0	(a) 57	17·7	24	6·0	..	..	93	26·7
United Provinces ..	15	4·6	16	16·3	25	5·4	11	23·5	15	7·2	82	57·0
Punjab	3	..	16	1·1	86	3·9	61	20·8	70	6·9	236	32·7
Burma	31	7·6	60	80·3	(b) 99	119·6	18	37·2	51	33·2	259	277·9
Eastern Bengal and Assam.	5	4·2	14	7·1	10	5·4	5	0·2	1	..	35	16·9
Central Provinces ..	48	22·5	71	65·4	87	65·0	22	31·0	116	143·0	344	326·9
Coorg	4	0·2	5	0·2	..	..	9	7·0	..	..	18	7·4
North-West Frontier Province.	..	..	7	5·1	20	0·8	2	8·4	22	5·9	51	20·2
Ajmer	2	..	..	..	(a) 7	..	..	..	..	..	9	..
Baluchistan ..	..	..	..	..	..	..	..	..	..	..	..	..
Andamans ..	..	..	1	..	..	..	..	..	..	..	1	..
Madras	51	8·4	161	53·2	329	185·0	426	148·2	605	268·9	1,572	663·7
Bombay	96	43·3	122	112·8	(c) 1,026	248·6	187	118·4	772	215·9	2,203	775·0
Total 1910-11	260	90·8	480	344·5	1,746	687·4	765	400·7	1,652	681·0	4,903	2,204·4
„ 1909-10	321	152·0	515	654·9	2,102	529·5	652	597·4	1,722	1,320·8	5,312	3,254·9
„ 1908-09	302	77·0	394	496·7	(a) 2,651	1,015·4	441	313·8	Included in columns 6 and 7.	..	3,788	1,902·9
„ 1907-08	351	223·7	551	676·9	(a) 3,572	1,678·4	727	596·6		..	5,201	3,175·6
„ 1906-07	283	110·6	416	371·7	(a) 3,214	1,798·4	479	300		..	4,392	2,580·7

(a) Includes fires due to unknown causes.
(b) Includes fires due to unknown causes in the Pegu Circle.
(c) Includes fires due to unknown causes in the Northern and Sind Circles.

STATEMENT X.

Area closed and open to grazing.

Province.	Area in square miles.						Remarks.
	Closed to all animals		Closed to browsers, camels, goats or sheep.		Open to all animals.	Total area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	5,353	7	688	63	1,842	(a) 7,953	(a) Includes 942 square miles not under the management of the Forest Department.
United Provinces	2,192	123	624	..	1,235	4,174	
Punjab	553	330	575	60	7,215	8,733	
Burma	20,061	4,727	163	6	112,270	137,227	
Eastern Bengal and Assam ..	5,583	..	183	..	23,145	(b) 28,911	(b) Includes 6 square miles not under the management of the Forest Department.
Central Provinces	3,572	399	9,183	41	8,189	21,384	
Coorg	169	351	(c)	..	..	520	(c) The whole area is closed to browsers.
North-West Frontier Province	83	6	100	..	47	236	
Ajmer	60	79	(c)	..	3	142	
Baluchistan	220	2	13	..	550	785	
Andamans	156	..	..	..	1,796	1,952	
Madras	2,585	65	652	..	16,728	(d) 20,030	(d) Of the total area 17,558 square miles were closed to goats only.
Bombay	2,105	664	8,942	9	3,328	(e) 15,048	(e) Includes 2,669 square miles not under the management of the Forest Department.
Total 1910-11	42,692	6,753	21,123	179	176,348	247,095	
" 1909-10	43,205	6,693	20,015	195	178,517	248,625	
" 1908-09	Figures not available.						
" 1907-08							
" 1906-07							

STATE

Protection

Province.	Grazed on payment, number of animals.									
	At full rates.					At privileged rates.				
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	9,220	35,555	5,970	..	17	9,251	152,597	12,606	..	528
United Provinces ..	72,751	207,859	74,267	11,164	9,886	30,461	144,000	111,070	6	359
Punjab	17,019	58,685	348,294	5,377	1,267	52	8,492	231,619	..	20
Burma	2,990	20,718	2,878	..	44	..	1,697	..	..	..
Eastern Bengal and Assam.	68,733	21,094	1,606	..	735	1,154	91,275	..	..	..
Central Provinces ..	416,918	1,581,615	613,190	193	8,331	59,654	1,244,294	25,883	..	74
Coorg	317	1,565	..	..	..	..	..	..	..	..
North-West Frontier Province.	1,434	2,108	1,072	..	78	..	..	..	..	..
Ajmer	441	3,013	..	..	..	2,261	13,345	..	..	..
Baluchistan	573	4,356	3,424	..	23	..	..	..	..	..
Madras	104,347	907,909	1,369,347	..	157	14,659	67,867	16,027	..	..
Bombay	(a) 21,003	143,314	46,796	1,062	2,873	131,663	(a) 1,074,004	182,088	..	3,530
Total 1910-11	715,773	2,987,791	2,466,844	17,796	23,411	249,155	2,797,571	579,293	6	4,511
„ 1909-10	729,893	3,603,674	2,760,872	13,374	21,702	148,827	1,807,268	576,177	59	3,518
„ 1908-09	860,729	4,547,396	3,342,919	15,381	24,985	162,773	1,891,704	575,115	50	5,965
„ 1907-08	628,263	3,955,142	3,247,292	20,928	33,266,	225,677	1,687,295	590,358	191	5,652
„ 1906-07	790,146	4,261,849	3,034,793	13,915	21,157	223,817	1,560,713	710,338	300	9,929

(a) Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
BY RIGHT UNDER SETTLEMENT.					DURING PLEASURE OF GOVERNMENT OR OTHERWISE THAN UNDER SETTLEMENT.				
Buffaloes. (12)	Cows and Bullocks. (13)	Goats and sheep. (14)	Camels. (15)	Other animals. (16)	Buffaloes. (17)	Cows and bullocks. (18)	Goats and sheep. (19)	Camels. (20)	Other animals. (21)
30,866	82,734	21,000	..	..	20	285	130	..	3
21,615	1,35,364	35,243	..	1,673	3,567	19,008	910	..	85
139,388	651,305	1,315,091	307	180,562	233	1,340	106	10,133	47
51,854	223,455	..	..	2	2,669	436	3	..	1,141
..	60	..	..	..	65,261	399,241	81,690	..	573
..	350	..	..	..	360	162,455	766	..	71
..	210	..	..	..	..	..	..	..	..
370	740	..	..	..	4,702	14,881	..	..	15
..	..	..	..	..	..	1,427	..	..	..
..	1,505	27,843	1	849	..	..	..	..	..
159	2,495	5,271	..	..	3,798	27,384	..	..	..
2,423	8,103	91	2	90	71,048	331,050	516	815	3,106
246,675	1,106,321	1,404,539	310	183,176	151,658	957,507	84,121	10,948	5,041
245,007	1,095,949	1,054,986	310	182,777	162,256	977,392	84,358	7,881	5,265
257,681	1,236,208	791,327	401	16,985	128,149	806,629	77,254	4,701	5,282
244,966	1,135,089	800,972	285	15,222	280,770	1,467,382	132,781	5,243	5,812
256,502	1,141,481	793,228	285	15,355	125,550	726,647	76,996	3,120	6,214

STATEMENT XII.

Area of plantations and the cost of the year's work.

Province. (1)	Area in acres at close of the year. Regular Plantations. (2)	Taungyas. (3)	Total. (4)	Cost of operations during the year. (5)
				Rs.
Bengal	1,164	115	1,279	2,020
United Provinces	(a) 5,052	..	5,052	4,919
Punjab	650	..	650	4,187
Burma	(b) 3,595	76,077	79,672	64,414
Eastern Bengal and Assam	3,864	..	3,864	4,164
Central Provinces	981	(c) 4,917	5,898	945
Coorg	2,062	1,753	3,815	2,758
North-West Frontier Province	..	..	..	..
Ajmer	..	..	..	1,172
Baluchistan	43	..	43	72
Andamans	855	1,300	2,155	5,631
Madras	28,437	2,927	31,364	152,314
Bombay	12,389	..	12,389	22,129
Total 1910-11 ..	59,092	87,089	146,181	2,64,725
" 1909-10 ..	62,078	84,721	146,799	2,76,920
" 1908-09 ..	58,780	84,123	142,903	2,35,803
" 1907-08 ..	61,245	83,171	144,416	2,36,966
" 1906-07 ..	57,710	77,075	134,785	2,31,036

(a) 979 acres excluded during the year.
(b) Cost includes Rs. 33,772 on account of the Merguí Rubber Plantation which was sold during the year.
(c) 1,278 acres transferred from Regular plantations during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile. Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal	16,735,060	2,00,094	17,334,004	270,751	4,099	..	34,094,103	4,71,745	3,052	47	6,256	98	..	..	4,863	67
United Provinces ..	17,772,061	7,43,749	501,194	4,020	5,884	519	18,279,139	7,48,288	4,320	181	16,706	134	196	17	4,379	179
Punjab	9,374,372	10,68,799	18,132,708	5,76,216	2,199,818	55,427	29,706,898	17,00,442	4,248	484	3,482	111	1,668	42	3,402	195
Burma	13,523,853	3,02,899	..	..	38,741,500	5,32,508	52,265,353	8,35,407	519	12	..	..	349	5	381	6
Eastern Bengal and Assam.	7,025,859	2,30,260	..	..	13,124,047	7,07,740	21,049,906	9,38,000	1,222	35	..	..	585	32	728	32
Central Provinces ..	32,027,467	14,16,997	..	..	..	..	32,027,467	14,16,997	1,526	66	..	..	..	..	1,526	66
Coorg	234,530	21,420	277,300	186	..	..	511,830	21,606	451	41	..	..	..	..	984	41
North-West Frontier Province.	1,080,092	23,331	..	..	..	..	1,080,092	23,331	4,577	99	..	..	..	..	4,577	99
Ajmer	506,813	17,422	..	18	..	..	506,813	17,440	3,569	123	..	..	..	..	3,569	123
Baluchistan	39,173	29,758	..	..	246,937	74	286,110	29,832	125	95	..	..	523	..	364	38
Andamans	959,691	2,917	..	..	971,784	2,138	1,941,475	5,055	6,216	19	..	..	541	1	995	
Madras	17,900,329	15,33,912	..	..	(a) 7,273,715	(a) 54,058	25,174,044	15,87,970	961	82	..	..	(b)	(b)	(b)	(b)
Bombay	41,887,349	17,31,709	1,672,596	..	..	..	43,059,945	17,31,709	3,480	146	3,379	..	..	..	3,479	14
Total 1910-11 ..	160,096,649	73,24,167	37,918,742	8,51,191	62,567,784	13,52,464	260,583,175	95,27,822	1,661	76	4,457	100	451	10	1,070	39
„ 1909-10 ..	148,584,547	65,72,945	35,563,965	5,10,160	56,984,418	12,28,313	241,132,930	83,11,418	1,540	68	4,035	58	406	9	982	34
„ 1908-09 ..	Full details not available ..				..		232,035,865	79,00,028	Full details not available						960	33
„ 1907-08 ..							234,982,123	82,67,161						..	996	35
„ 1906-07 ..							222,146,948	75,66,292							925	32

(a) Outturn of reserved and unreserved lands.

(b) The area of land from which revenue has been derived is not known.

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

Province.	Timber.					Fuel.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	72,646	4,660,372	43,211	199,234	4,975,463	24,276	15,106,271	19,488	13,968,605	29,118,640
United Provinces	92,731	5,184,622	42,017	265,770	5,585,140	740,353	9,033,246	120,580	2,799,820	12,693,999
Punjab	205,805	3,727,905	97,241	798,460	4,911,411	747,484	4,685,588	101,012	19,361,403	24,895,487
Burma	2,731,847	29,112,098	764,852	1,392,403	34,001,200	1,033,184	16,124,350	281,433	825,186	18,264,153
Eastern Bengal and Assam	672,973	5,821,849	762,118	520	7,257,460	18,231	7,467,657	4,730,118	1,576,440	13,792,446
Central Provinces	578,927	4,261,688	121,914	47,450	5,009,979	849,928	23,993,378	1,093,892	1,680,290	27,617,488
Coorg	179,805	244,955	..	..	424,760	16,000	71,070	..	..	87,070
North-West Frontier Province	6,757	667,224	9,545	10,666	694,192	112,084	224,748	14,088	34,980	385,900
Ajmer	10	1,761	..	5,867	7,638	108,924	388,896	1,355	..	499,175
Baluchistan	57	6,322	12,006	..	18,385	36,886	230,807	..	32	267,725
Andamans	753,513	38,478	35,008	56,676	883,675	692,280	17,400	278,880	69,240	1,057,800
Madras	584,206	(a) 2,240,875	143,775	64,762	(a) 3,033,618	13,313,041	(b) 8,615,217	55,162	157,006	(b) 22,140,426
Bombay	875,209	4,379,178	134,837	420,000	5,809,224	4,119,159	24,766,768	27,774	8,337,020	37,250,721
Total 1910-11	6,754,486	60,347,327	2,148,514	3,261,808	72,512,145	21,811,830	110,724,396	6,723,782	75,009,022	188,071,030
„ 1909-10	6,734,088	54,516,295	2,130,724	2,609,490	65,990,597	22,413,511	90,751,966	5,911,229	56,065,627	175,142,333
„ 1908-09	6,758,266	53,274,103	1,814,338	2,563,187	64,409,894	20,104,263	94,238,730	6,157,792	47,125,156	167,625,971
„ 1907-08	7,823,674	52,965,071	2,112,544	2,464,266	65,365,555	21,546,742	92,015,666	7,653,314	48,400,846	169,616,568
„ 1906-07	8,719,273	45,411,733	1,325,357	2,433,669	57,890,032	20,725,026	92,222,166	5,991,867	45,316,957	164,256,916

(a) Exclusive of 7,808 cubic feet obtained by confiscation.
(b) Exclusive of 16,635 cubic feet obtained by confiscation.

STATEMENT XIV—*contd.*

Forest produce removed by different agencies—*contd.*

Part II.—Value of minor forest produce.

Province.	Bamboos.					Grazing and Fodder Grass.					Other Minor Produce.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	12,259	29,314	164	20,035	61,772	..	28,559	543	80,429	1,09,531	1,643	1,67,020	42	1,31,737	3,00,442
United Provinces ..	150	1,82,169	56	844	1,83,219	..	1,25,493	33,527	72,151	2,31,171	1,16,304	2,10,466	3,976	3,152	3,33,898
Punjab	4,150	7,779	20	30	11,979	8	2,03,632	2,216	14,03,311	16,09,167	19,974	14,472	2	44,848	79,296
Burma	226	2,17,084	1,636	29,218	2,48,164	..	8,341	15,135	1,47,084	1,70,560	4,350	3,68,370	2,549	41,414	4,16,683
Eastern Bengal and Assam.	218	72,183	5,047	9,118	86,566	..	93,398	1,82,653	22,809	2,98,860	47,466	2,49,254	2,55,854	..	5,52,574
Central Provinces ..	6,507	1,82,059	3,357	9,576	2,01,499	6,636	8,08,973	17,333	28,612	9,51,554	7,647	2,36,525	7,202	12,480	2,63,944
Coorg	..	956	..	..	956	..	753	..	52	805	..	19,845	..	..	19,845
North-West Frontier Province.	..	..	..	..	..	..	9,995	11,132	626	21,753	1,154	268	56	100	1,578
Ajmer	..	588	..	..	588	1,818	2,550	65	10,950	15,383	360	968	141	..	1,469
Baluchistan ..	..	..	..	..	..	..	1,250	..	26,731	27,981	28	774	466	..	1,268
Andamans ..	13	85	200	221	579	..	..	..	..	..	793	439	2,962	282	4,476
Madras	96,462	160,553	1,278	62	2,58,355	1,754	6,22,248	326	1,746	6,26,074	42,328	6,36,184	1,004	24,025	7,03,541
Bombay	367	91,540	356	15,000	1,07,263	305	4,68,155	4,575	4,19,519	8,92,554	41,607	1,48,337	2,389	5,39,469	7,31,892
Total 1910-11 ..	1,20,352	9,44,280	12,204	84,104	11,60,940	10,521	24,63,347	2,67,505	22,14,020	49,55,393	2,83,744	20,52,922	2,76,733	7,97,507	34,10,906
,, 1909-10 ..	1,15,827	9,26,627	9,294	1,03,059	11,54,807	15,668	25,19,907	2,45,636	8,12,436	35,93,647	3,48,747	21,07,944	2,48,075	8,58,198	35,62,964
,, 1908-09 ..	1,10,111	7,50,323	..	(a) 1,00,851	9,61,285	Included in columns 12-16					2,95,435	45,90,483	4,79,059	15,73,706	69,38,743
,, 1907-08 ..	1,39,095	7,51,533	..	(a) 2,37,292	11,27,920						3,32,571	46,53,786	7,68,135	13,84,749	71,39,241
,, 1906-07 ..	1,20,174	6,93,669	..	(a) 1,62,430	9,76,273						2,73,317	44,87,292	4,05,967	14,23,443	65,90,019

(a) Includes free grants.

STATEMENT XV.

Exports of forest produce.

Articles of Forest Produce.	Quantity in tons of 20 cwt. in the case of Teak, cubic tons.		Valuation at port of shipment in 1910-11.	
	Average of 5 years 1905-03 to 1909-10.	In 1910-11.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc	166	194	15,96,748	8,231
Lac — Button	1,993	1,564	15,87,205	1,015
Lac — Shell	14,854	17,897	1,92,92,267	1,078
Lac — Stick, seed and other kinds ..	1,573	1,621	5,49,104	339
Cutch and gambier	3,478	4,552	16,71,613	367
Myrabolams	67,959	82,945	69,76,456	84
Cardamums	122	160	4,56,885	28,855
Sandal, Ebony and other ornamental woods ..	(a)	(a)	13,85,518	....
Teak	39,870	53,088	86,92,524	164
Other timbers	4,943	5,419	4,63,223	85
Total in 1910-11			4,26,71,543	
„ 1909-10			4,20,96,717	
„ 1908-09			(b) 4,06,20,228	
„ 1907-08			5,63,69,672	
„ 1906-07			4,96,50,953	

(a) Quantity (whether by weight or measurement) not recorded.
(b) Corrected figure. Includes "other timbers" previously excluded.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Grass and grazing.	Other Minor produce.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	20,052	26,053	20,199	79,324	1,34,012	2,79,640
United Provinces	39,963	45,890	900	1,12,606	7,128	2,06,487
Punjab	46,632	3,20,501	50	14,22,451	44,850	18,34,484
Burma	1,72,991	9,987	33,393	1,62,219	41,424	4,20,014
Eastern Bengal and Assam	34,823	76,044	14,165	2,06,346	2,55,854	5,87,232
Central Provinces	23,513	71,102	31,559	1,44,466	32,320	3,02,960
Coorg	..	..	..	52	..	52
North-West Frontier Province ..	3,174	970	..	11,758	156	16,058
Ajmer	586	135	..	11,015	141	11,877
Baluchistan	1,000	..	..	26,731	466	28,197
Andamans	7,179	9,018	511	..	3,244	19,952
Madras	40,585	4,211	1,340	2,072	25,029	73,237
Bombay	1,04,593	7,87,031	22,836	4,24,094	2,39,810	15,78,364
Total 1910-11 ..	4,95,091	13,50,942	1,24,953	26,03,134	7,84,434	53,58,554
„ 1909-10 ..	5,91,704	12,73,626	1,12,783	19,86,080	7,07,099	46,71,292
„ 1908-09 ..	4,95,943	16,46,785	1,00,851	13,50,711	10,03,160	45,97,450
„ 1907-08 ..	5,12,037	16,42,333	2,37,292	18,85,296	6,76,361	49,53,319
„ 1906-07 ..	3,70,133	6,51,011	1,62,430	16,59,343,	5,62,515	34,05,432

STATEMENT XVII.

Details of revenue and expenditure for the Forest year.

				Rs.
Gross Receipts ..	(a) Wood ..			2,14,59,452
	(b) Minor forest produce			25,94,850
	(c) Forest stamps and commutation fees for forest produce			1,40,866
	(d) Grazing			24,74,080
	(e) Revenue from forests not managed by Government			3,43,471
	(f) Miscellaneous			12,48,057
		Total Revenue	..	2,82,60,776
Expenditure ..	A. Recurring .. (a) Administration.	(i) Superior Staff	..	29,51,694
		(ii) Subordinate Staff (including Rangers, Foresters and Guards).		28,20,232
		(iii) Office Establishments (including Contingencies).		15,45,302
	(b) Working	(1) Extraction	..	34,71,590
		(2) Roads and Buildings	..	14,59,606
		(3) Fire-protection	..	6,91,309
		(4) Cultural operations	..	7,90,550
		(5) Live-stock, stores and plant	..	5,57,286
		(6) Working-Plans	..	59,742
		(7) Rent for leased forests	..	2,47,474
		(8) Miscellaneous	..	1,96,262
	(c) Expenditure on realization of revenue from forests not managed by Government.			10,098
	(d) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute).			1,36,974
		Total	..	1,49,38,119
	B. Extraordinary (e) Forest Settlement		..	62,136
	(f) Forest Survey		..	35,731
	(g) Forest Demarcation		..	1,33,647
		Total	..	2,31,514
		GRAND TOTAL OF EXPENDITURE	..	1,51,69,633
		Net Revenue	..	1,30,91,143

STATE

Summary of revenue and expenditure of the Forest

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Eastern Bengal and Assam.	Central Provinces.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
REVENUE.							
I.—Timber and other produce removed from the forests by Government agency.	4,361	26,585	2,21,144	2,23,156	24,09,676	5,90,037	96,555
II.—Timber and other produce removed from the forests by consumers or purchasers.	4,301	11,05,536	20,40,561	8,85,573	70,66,222	10,63,388	19,22,903
III.—Drift and waif wood and confiscated forest produce.	..	3,007	18,779	30,017	2,34,696	33,606	1,294
IV.—Revenue from forests not managed by Government.	..	..	10,346	3,692	2,12,989	1,15,051	188
V.—Miscellaneous	..	32,316	87,609	75,550	1,46,534	88,553	93,286
Total Revenue ..	(a) 8,662	11,67,444	23,78,439	12,17,988	1,00,70,117	18,90,635	21,14,226
EXPENDITURE.							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forests by Government agency.	382	13,410	1,63,748	70,539	7,02,482	2,83,073	41,407
II.—Timber and other produce removed from the forests by consumers or purchasers.	..	101,003	50,965	5,942	1,03,266	15,847	1,08,116
III.—Drift and waif wood and confiscated forest produce.	..	832	4,589	12,698	1,09,338	1,351	5
IV.—Revenue from forests not managed by Government.	..	..	4,404	..	116	9,565	..
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	..	19,643	1,05,734	39,435	..	40,048	..
VI.—Live-stock, stores, tools and plant	..	18,565	32,636	6,392	1,31,740	35,037	55,344
VII.—Communications and buildings ..	..	90,416	1,65,376	1,27,761	3,06,182	1,37,777	1,85,815
VIII.—Demarcation, improvement and extension of forests.	345	47,637	1,36,158	56,057	5,55,692	55,179	2,03,107
IX.—Miscellaneous	..	5,073	27,691	6,264	41,993	8,806	27,513
Total A.—Conservancy and Works ..	(b) 727	2,97,179	6,91,301	3,25,088	19,50,809	5,86,683	6,21,307
B.—Establishments.							
I.—Salaries	(d) 91,355	2,81,491	4,32,781	3,12,727	15,72,287	3,99,743	8,06,280
II.—Travelling Allowances	(c) 211	50,016	69,444	65,783	2,45,026	62,616	85,638
III.—Contingencies	(c) 313	14,599	44,412	36,944	74,677	38,298	76,308
Total B.—Establishments ..	91,879	3,46,106	5,46,637	4,15,454	18,91,990	5,00,657	9,68,226
Grand Total of Expenditure ..	92,606	6,43,285	12,37,938	7,40,542	38,42,799	10,87,340	15,89,533
Surplus ..	..	5,24,159	11,40,501	4,77,446	62,27,318	8,03,295	5,24,693
Deficit ..	83,944	..	..	..	..	..	..
Proportion of surplus to gross revenue	..	45	48	39	62	42	25
Net revenue per square mile of forest area under control of Forest Department.	..	75	273	55	45	28	25

(a) Represents revenue derived from Indore.
(b) " expenditure derived on account of Indore.

MENT XVIII.

Department in India for the financial year 1910-11.

Coorg.	North-West Frontier Province.	Ajmer.	Baluchistan.	Andamans.	Imperial Forest College and Research Institute.	Forest Surveys (Imperial).	Madras.	Bombay.	Total.
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1,91,791	1,14,188	9,352	13,357	4,08,526	..	..	14,41,292	10,87,065	68,37,085
69,390	80,337	23,542	2,395	6,354	..	..	21,37,155	25,17,890	1,89,25,547
5	113	12	..	..	..	..	13,681	4,399	3,39,609
..	4,832	..	7,231	..	..	..	..	8,938	3,63,267
14,869	5,872	940	229	1,893	4,080	..	2,88,283	99,932	9,39,946
2,76,055	2,05,342	33,846	23,212	4,16,773	4,080	..	38,80,411	37,18,224	2,74,05,454
20,280	14,087	4,931	6,512	1,50,529	..	..	7,52,665	5,11,784	27,35,829
..	232	255	2	..	..	..	1,20,154	86,013	5,92,395
..	8	..	..	..	..	..	1,929	187	1,30,937
..	..	..	184	..	..	..	..	..	14,269
..	6,889	..	..	..	..	..	15,505	44,698	2,71,952
9,330	795	141	89	22,079	11,541	..	1,72,394	13,560	5,09,643
3,243	7,413	431	623	4,263	2,737	..	2,61,878	1,28,875	14,22,790
11,235	3,812	1,332	139	6,575	..	41,140	5,86,096	1,53,288	18,57,792
1,124	1,521	44	227	497	17,941	..	9,573	38,418	1,86,685
45,212	34,757	7,134	7,776	1,83,943	32,219	41,140	19,20,194	9,76,823	77,22,292
53,305	29,371	10,017	15,838	37,654	1,48,192	..	9,94,366	9,11,650	60,97,057
7,240	5,284	1,823	2,375	4,440	15,089	..	2,13,679	1,26,519	9,55,183
1,922	3,080	944	398	926	23,683	..	97,562	55,425	4,69,491
62,467	37,735	12,784	18,611	43,020	1,86,964	..	13,05,607	10,93,594	75,21,731
1,07,679	72,492	19,918	26,387	2,26,963	2,19,183	41,140	32,25,801	20,70,417	1,52,44,023
1,68,376	1,32,850	13,928	..	1,89,810	..	..	6,54,610	16,47,807	1,21,61,431
..	..	..	3,175	..	2,15,103	41,140	..	..	—
61	65	41	..	46	..	..	17	44	44
324	563	98	..	97	..	..	133	133	..

(c) Represents expenditure on account of Indore.

(d) Includes Rs. 2,661 expenditure on account of Indore.

STATE

Revenue, expenditure and surplus of the Forest Department

(I) REV

PROVINCE.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial*	4,186	4,847	4,017	4,759	6,370	6,688	5,240	2,680	4,980	2,690	4,100	19,130
Bengal	6,53,634	6,57,794	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710	13,70,850	11,89,280
United Provinces ..	15,73,556	12,47,454	14,62,802	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860	16,58,250	16,01,340	14,44,820	13,86,670
Punjab	11,27,277	7,86,936	10,45,768	9,21,713	8,34,370	10,20,074	812,630	9,13,300	10,32,430	10,14,500	11,07,720	10,68,470
Burma	21,06,741	25,15,773	41,89,233	49,40,786	43,21,968	41,85,414	56,60,000	57,85,100	54,36,780	56,95,830	63,78,950	72,15,260
Eastern Bengal and Assam.	2,12,011	2,67,312	3,03,882	3,79,498	3,26,793	3,36,129	3,82,830	4,88,500	4,35,090	4,25,030	4,36,440	3,84,820
Central Provinces ..	12,84,322	15,00,412	15,88,382	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140	11,80,400
Coorg	99,291	1,27,028	1,36,183	92,753	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	11,274	14,293	13,574	11,592	15,266	19,799	14,890	14,620	12,840	15,640	12,370	15,540
Baluchistan ..	14,081	14,063	5,668	13,897	15,724	20,609	19,030	20,730	16,300	14,930	15,460	15,040
Andamans ..	31,870	1,04,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710
Imperial Forest College and Research Institute.	415	777	449	1,237	1,184	1,788	1,980	1,990	2,790	4,310	2,850	2,890
Forest Surveys (Imperial).	241	40	315	220	2,104	257	520	240	80	510	400	220
Total ..	71,18,899	72,40,791	95,33,255	1,06,08,249	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14 52,140	1,25,20,470	1,30,42,340
Madras	12,46,011	13,74,920	15,15,006	15,57,927	17,95,408	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	23,03,330	21,36,490
Bombay	30,32,676	30,32,577	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670	30,32,710	26,16,660
GRAND TOTAL ..	1,13,98,486	1,16,48,288	1,38,98,451	1,53,03,872	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490

(II) EXPENDI

Imperial*	86,299	78,626	86,199	81,311	85,414	65,788	1,07,270	80,840	84,950	80,410	78,960	84,300
Bengal	4,22,781	3,90,368	3,76,270	3,98,150	4,14,004	4,22,030	3,81,610	4,04,040	3,97,390	4,60,070	6,90,040	6,53,440
United Provinces ..	9,19,580	8,30,748	8,44,544	9,63,151	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860	9,06,340	9,17,850
Punjab	7,16,510	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7,23,300	7,71,940
Burma	10,78,018	11,53,846	20,17,073	16,06,644	13,98,789	16,98,980	18,05,000	18,62,500	19,17,990	19,33,600	21,28,820	21,96,610
Eastern Bengal and Assam.	2,12,287	2,26,892	2,09,905	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010	2,88,830
Central Provinces ..	7,16,469	7,78,802	8,62,864	8,79,458	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860	11,65,490
Coorg	74,088	72,629	80,175	72,420	65,818	86,860	73,090	86,890	86,140	85,840	71,630	87,020
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	20,744	18,897	15,676	12,701	12,720	13,986	15,000	15,900	14,900	15,730	22,010	14,670
Baluchistan ..	17,836	17,753	15,994	17,962	29,450	30,497	55,620	63,730	40,910	41,770	29,770	27,330
Andamans ..	25,769	62,679	57,295	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600	2,47,340
Imperial Forest College and Research Institute.	30,831	33,129	32,961	29,646	35,191	44,347	50,400	65,530	65,080	67,950	67,380	60,920
Forest Surveys (Imperial).	28,348	32,868	22,164	21,188	24,324	26,882	22,160	27,900	29,840	29,950	31,970	33,950
Total ..	43,49,580	43,75,149	52,15,005	50,80,590	49,46,325	54,38,471	56,70,870	59,05,990	59,19,020	59,28,610	65,41,690	65,49,690
Madras	11,53,122	11,29,212	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,800	15,72,850
Bombay	19,52,010	19,14,005	16,93,962	17,70,691	18,69,887	19,31,457	19,04,970	20,71,940	20,67,920	19,58,390	19,69,160	20,73,190
GRAND TOTAL ..	74,55,592	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730

(III)

Imperial*	—82,113	—73,779	—82,182	—76,552	—79,044	—59,100	—1,02,030	—78,160	—79,970	—77,720	—74,860	—65,170
Bengal	2,30,853	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,89,280	4,52,640	6,80,810	5,35,840
United Provinces ..	6,53,976	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	5,38,480	4,68,820
Punjab	4,10,767	1,09,024	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530
Burma	10,28,723	13,61,927	21,72,160	33,34,142	29,33,179	24,86,434	38,55,000	39,22,600	35,18,790	37,62,230	42,50,130	50,18,650
Eastern Bengal and Assam.	—276	40,420	93,977	1,22,369	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990
Central Provinces ..	5,67,853	7,21,610	7,25,518	7,17,264	7,96,095	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430	98,280	14,910
Coorg	25,203	54,399	56,008	20,333	69,743	96,037	1,07,590	86,900	66,910	49,410	21,370	48,890
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer ..	—9,470	—4,604	—2,102	—1,109	2,546	5,813	—110	—1,280	—2,060	—90	—9,640	870
Baluchistan ..	—3,755	—3,690	—10,326	—4,065	—13,726	—9,888	—36,590	—43,000	—24,610	—26,840	—14,310	—12,290
Andamans ..	6,101	41,383	48,780	67,220	28,274	92,429	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370
Imperial Forest College and Research Institute.	—30,416	—32,352	—32,512	—28,409	—34,007	—42,559	—48,420	—63,540	—63,190	—63,640	—64,530	—58,030
Forest Survey (Imperial).	—28,107	—32,828	—21,849	—20,968	—22,220	—26,625	—21,640	—27,660	—29,760	—29,440	31,570	—33,730
Total ..	27,69,339	28,65,642	43,18,250	55,27,659	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78,780	64,92,650
Madras	93,789	2,45,708	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960	7,69,030	5,63,640
Bombay	10,79,766	10,88,572	11,56,228	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550	5,43,470
GRAND TOTAL ..	39,42,894	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99 760

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, Office Establishment and undistributable and petty local

MENT XIX.

throughout India during the 25 financial years from 1886-87 to 1910-11.

ENUE.

1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	PROVINCE.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
17,540	6,090	2,463	3,484	3,659	7,455	3,768	7,255	..	7,666	8,189	10,632	8,662	Imperial. *
9,72,310	11,38,010	12,33,339	12,02,237	12,56,247	10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11,84,845	10,80,640	11,67,444	Bengal.
15,68,040	16,14,740	15,65,463	17,15,508	20,25,324	22,80,446	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	23,78,439	United Provinces.
14,74,430	14,00,770	13,50,842	14,47,558	15,86,408	17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,633	12,17,088	Punjab.
83,50,890	78,12,050	80,54,444	58,73,938	67,39,053	82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	91,92,032	93,58,077	1,00,70,117	Burma.
3,98,180	5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,34,732	18,90,635	Eastern Bengal and Assam.
14,34,940	12,97,490	12,65,614	15,79,116	16,84,428	19,98,032	20,13,459	24,49,131	24,01,159	22,90,128	20,78,162	20,78,340	21,14,226	Central Provinces and Berar.
1,55,070	1,62,410	1,37,596	1,70,242	1,90,730	2,24,031	1,93,087	2,45,41)	2,35,909	2,74,756	2,24,330	2,13,129	2,76,055	Coorg.
..	..	..	13,012	1,01,123	1,01,833	90,991	1,28,5)	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	North-West Frontier Province.
14,420	10,270	10,646	6,865	9,736	13,884	17,297	15,002	18,335	29,864	27,615	23,990	33,846	Ajmer.
14,020	17,060	16,956	14,712	19,386	18,363	22,555	21,481	21,195	24,829	23,305	18,729	23,212	Baluchistan.
2,29,460	2,60,600	2,77,886	2,66,903	3,26,035	4,32,381	6,20,786	5,82,511	6,07,027	2,91,822	2,02,018	2,59,477	4,16,778	Andamans.
2,360	3,210	3,697	3,545	3,252	3,038	3,557	3,080	4,579	6,137	4,680	4,909	4,080	Imperial Forest College and Research Institute.
290	420	327	473	3,034	431	..	..	..	..	..	..	..	Forest Surveys (Imperial).
1,46,32,850	1,42,92,120	1,44,68,794	1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	1,98,06,819	Total.
21,10,520	23,02,290	23,40,170	25,43,430	26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	38,90,919	41,78,381	38,80,421	Madras.
22,95,150	24,15,200	20,61,529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	Bombay.
1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,20,950	2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	GRAND TOTAL.

TURE.

85,460	96,550	83,578	79,539	85,017	89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	Imperial. *
4,86,320	5,45,210	5,70,806	6,57,181	6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	Bengal.
9,72,080	9,42,380	9,63,439	10,08,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,94,013	12,22,436	12,09,308	12,37,938	United Provinces.
8,55,340	12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	12,63,664	11,44,403	11,76,696	8,51,627	6,67,752	7,40,542	Punjab.
24,26,100	24,47,440	26,54,717	26,46,457	28,90,263	33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	38,42,799	Burma.
3,05,360	3,57,140	3,47,972	3,29,112	3,27,498	4,25,484	5,03,656	5,03,910	7,07,860	8,00,373	8,01,349	10,12,541	10,87,340	Eastern Bengal and Assam.
11,09,400	12,75,820	11,65,866	12,00,904	12,57,288	12,80,966	13,20,615	13,07,153	13,42,878	15,83,407	17,53,307	15,86,852	15,89,533	Central Provinces and Berar.
80,100	74,220	70,905	82,333	89,437	92,101	83,820	95,748	1,02,855	1,04,819	99,595	1,07,822	1,07,679	Coorg.
..	..	..	19,510	54,086	60,603	74,958	95,258	93,650	88,400	81,413	77,391	72,492	North-West Frontier Province.
16,300	15,350	16,782	15,927	16,377	16,680	15,641	17,131	16,715	18,188	19,916	19,272	19,018	Ajmer.
27,760	28,680	29,254	24,480	23,240	21,697	24,672	25,743	26,322	31,258	36,586	26,549	26,387	Baluchistan.
1,38,400	1,40,040	1,40,137	2,04,667	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	2,26,963	Andamans.
63,370	73,550	71,238	76,290	66,338	59,330	61,424	80,669	1,37,486	1,58,038	1,83,191	1,96,174	2,19,183	Imperial Forest College.
33,970	33,980	33,991	33,730	33,985	32,935	28,229	30,044	30,389	27,060	39,128	41,062	41,140	Forest Surveys (Imperial).
66,00,000	72,42,720	70,36,028	73,17,154	77,37,338	86,40,126	90,77,954	98,65,826	95,92,956	97,76,649	97,64,900	95,17,931	99,47,805	Total.
15,94,670	16,53,530	17,15,431	17,09,554	18,35,552	17,50,930	19,86,098	22,66,602	24,80,660	27,80,857	29,17,261	33,39,635	32,25,801	Madras.
18,30,250	21,28,430	24,08,581	17,19,680	16,76,441	17,75,937	19,03,804	21,26 ·03	19,90,183	19,55,427	20,43,873	20,63,088	20,70,417	Bombay.
1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,790	1,45,12,933	1,47,26,034	1,49,20,654	1,52,44,023	GRAND TOTAL.

SURPLUS.

—67,020	—90,460	—81,115	—76,055	—81,358	—81,890	—79,290	—76,512	—95,472	—92,538	—95,994	—93,700	—83,944	Imperial. *
4,85,990	5,93,700	6,62,533	6,35,106	6,18,233	3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,159	Bengal.
5,96,090	6,72,360	6,02,024	7,06,769	10,11,326	11,99,008	10,05,735	10 28,246	11,96,013	12,15,732	9,52,970	10,91,586	11,40,501	United Provinces.
6,19,010	1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2 80,753	4,37,165	3,64,881	4,77,446	Punjab.
59,24,700	53,64,610	53,99,727	32,27,481	38,48,790	49,16,131	55,12,832	63,91,306	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	Burma.
92,820	2,10,960	2,01,549	1,83,851	2,52,701	2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	Eastern Bengal and Assam.
3,25,540	21,670	99,748	3,78,212	4,27,140	7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	4,91,488	5,24,693	Central Provinces and Berar.
74,970	88,190	66,691	87,909	1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	1,68,376	Coorg.
..	..	..	—6,498	47,038	41,230	16,033	33,271	89,564	1,50,090	41,369	95,914	1,32,850	North-West Frontier Province.
—1,880	—5,080	—6,136	—9 062	—6,641	—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	13,928	Ajmer.
—12,840	—11,620	—12,298	—9,7 3	—3,904	—3,334	—2,117	—4,262	—5,127	—6 429	—13,281	—7 820	—3,175	Baluchistan.
91,060	1,19,660	1,37,749	62,236	44,733	1,66,260	2,78,365	2,46,526	3,11 891	62,555	21,077	65 318	1,89,810	Andamans.
61,010	—70,340	—67,541	—72,745	—63,086	—56 301	—57,867	—77,589	—1,32,907	—1,51,0 1	—1,78,511	—1,91,265	—2,15,103	Imperial Forest College.
—33,680	—33,560	—33,664	—33,257	—30,951	—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	Forest Surveys (Imperial).
80,32,850	70,49,400	74,32,766	55,83,402	67,91,227	81,67 355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,826	98,59,014	Total.
5,15,850	6,48,760	6,24,739	8,33,876	7,78,267	9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	Madras.
4,54,900	2,86,770	5,52,948	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47,807	Bombay.
90,04,600	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	GRAND TOTAL.

items and revenue and charges on account of Indore and Bangalore. Excludes Home charges.

G. M. Press, Simla.—No. 121 R. & A.—9-10-12.—424.—.HC.S.L.

DIAGRAMS ILLUSTRATING
SOME OF THE
PRINCIPAL RESULTS
OF
FOREST ADMINISTRATION
IN
BRITISH INDIA
DURING
1910-11.

DIAGRAM I.
Reserved Protected and Unclassed Forests and Area under working plans.

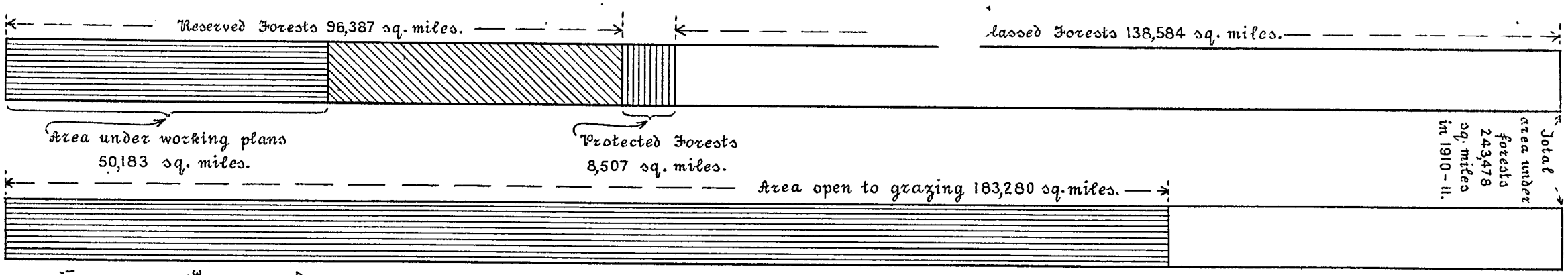

Reserved Forests 96,387 sq. miles.
lassed Forests 138,584 sq. miles.
Total area under forests 243,478 sq. miles in 1910-11.
Area under working plans 50,183 sq. miles.
Protected Forests 8,507 sq. miles.

DIAGRAM II.
Area open to grazing.

DIAGRAM III.
Cases of breaches of Forest Rules.

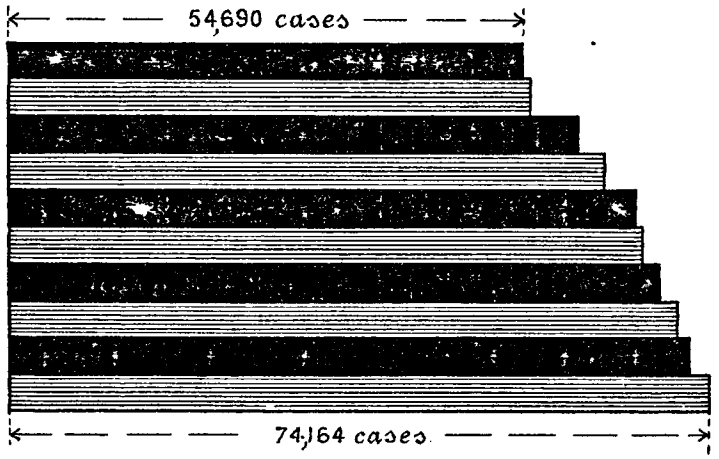


DIAGRAM IV.
Number of animals grazed in Government Forests.

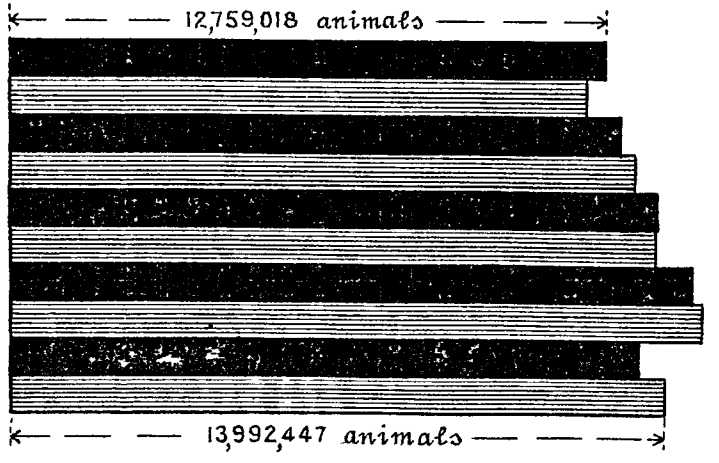


DIAGRAM V.
Cut turn of timber and fuel in tons of 50 c.ft.

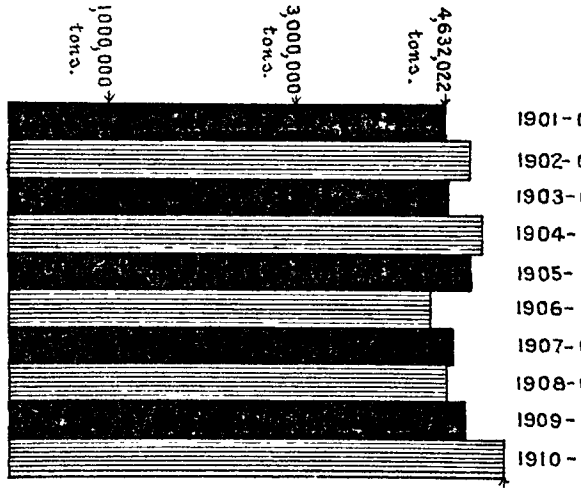
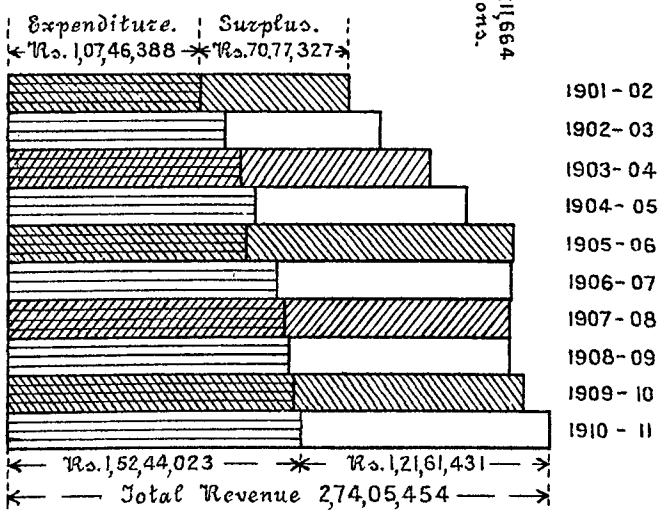


DIAGRAM VI.
Forest Revenue & Expenditure. (Financial years)



ANNUAL RETURN

OF

STATISTICS

RELATING TO

FOREST ADMINISTRATION

IN

BRITISH INDIA

1911-12.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

SIMLA:
PRINTED AT THE GOVERNMENT MONOTYPE PRESS.
1913.

67R&A

NOTICE.

These statistics were formerly included in the Inspector General of Forests' annual Review of Forest Administration in British India. From 1910-11 only the Statistics are being published annually and the progress of Forest Administration in India will be reviewed quinquennially, commencing with the period ending with the year 1913-14.

A few diagrams, illustrative of the principal results, are appended to the present issue of the statistics.

SIMLA;

The 15th August 1913.

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APPENDIX.

Statistical diagrams indicating some results of Forest Administration in British India.

STATEMENT I.

Area of all forest lands.

Province. Name. (1)	Area in square miles. (2)	Forest area in square miles. Reserved. (3)	Protected. (4)	Unclassed State. (5)	Total. (6)	Percentage of forests to whole area of Province. (7)	Remarks. (8)
Bengal	77,572	(a) 4,663	(b) 1,711	4,030	10,404	13·4	(a) Excludes 17 square miles of reserved forests not under the management of the Forest Department.
United Provinces ..	106,773	(c) 4,117	(d) 30	29	4,176	3·9	(b) Excludes 54 square miles not under the control of the Forest Department.
Punjab	97,211	(e) 2,208	(f) 5,203	1,312	8,723	9	(c) Includes 156 square miles of leased forests.
Burma	169,999	26,135	..	111,218	1,37,353	80·8	(d) Excludes 9,069 square miles of District forests not under the control of the Forest Department.
Bihar and Orissa ..	83,083	1,719	(g) 1,057	..	2,776	3·3	(e) Includes 364 square miles of leased forests but excludes 110 square miles of Reserved Forests not under the control of the Forest Department.
Assam	48,915	4,321	..	18,404	22,725	46·5	(f) Excludes 19 square miles not under the control of the Forest Department.
Central Provinces (including Berar).	99,874	21,038	..	..	21,038	21·1	(g) Excludes 927 square miles of other protected forests not under the management of the Forest Department.
Coorg	1,582	520	..	..	520	32·9	(h) Excludes 14 square miles of Military and Civil Reserved Forests.
North-West Frontier Province.	13,184	(h) 236	(i)	..	236	1·8	(i) 121 square miles of Civil Protected forests are not shown.
Ajmer	2,767	142	(j) ..	..	142	5·1	(j) There are only 115 acres of Protected Forests in Ajmer.
Baluchistan (Portions under British Administration).	46,656	313	..	472	785	1·7	
Andamans	3,143	156	..	2,013	2,169	69·0	
Madras	142,303	18,601	..	(k) 838	19,439	13·7	(k) Reserved lands.
Bombay (including Sind)	123,261	(l) 11,979	(m) 495	..	12,474	10·1	(l) Includes 331 square miles of leased forests and excludes 2,044 square miles of forests in charge of the Revenue Department.
Total 1911-12 ..	1,016,323	96,148	8,496	138,316	242,960	23·9	(m) Includes 325 square miles of leased forests and excludes 548 square miles of Protected Forests in charge of the Revenue Department.
„ 1910-11 ..	1,016,282	96,387	8,507	138,584	243,478	23·9	
„ 1909-10 ..	987,990	96,474	8,814	140,263	245,551	24·9	
„ 1908-09 ..	986,144	94,561	8,835	138,378	241,774	24·5	
„ 1907-08 ..	895,938	94,059	8,853	134,897	237,809	24·2	

STATE

Progress in forest

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.					
				Area.			Expenditure incurred.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
Bengal ..	4,685	..	4,685	..	..	..	..	..	..
United Provinces..	3,958	30	3,988	2	..	2	..	..	..
Punjab	1,952	5,222	7,174	2	..	2	..	..	..
Burma	25,881	..	25,881	267	..	267	17,900	..	17,900
Bihar and Orissa ..	1,717	..	1,717	3	..	3	(*b*)282	..	282
Assam	4,345	..	4,345	..	..	..	..	..	..
Central Provinces	21,383	..	21,383	21	..	21	..	..	..
Coorg	520	..	520	..	..	..	..	..	..
North-West Frontier Province.	250	121	371	..	..	..	..	..	..
Ajmer	..	..	..	..	..	..	..	..	..
Baluchistan ..	313	..	313	..	..	..	..	..	..
Andamans ..	156	..	156	..	..	..	..	..	..
Madras	18,598	..	18,598	5	..	5	1,330	..	1,330
Bombay ..	13,649	717	14,366	10	..	10	..	..	..
Total 1911-12	97,407	6,090	103,497	310	..	310	19,512	..	19,512
„ 1910-11	90,281	6,281	96,862	843	2	845	11,676	..	11,676
„ 1909-10	90,011	6,162	96,173	2,096	..	2,096	13,601	..	13,601
„ 1908-09	(*a*)90,915	6,289	97,204	1,217	13	1,230	8,583	..	8,583
„ 1907-08	89,197	6,310	95,507	1,798	..	1,798	7,490	..	7,490

(*a*) Corrected area.
(*b*) Rs. 400 was also incurred "In other
(*c*) Rs. 800 was also incurred "In other

MENT II.

settlements.

AREA UNDERGOING SETTLEMENT.

AT COMMENCEMENT OF THE YEAR.			TAKEN IN HAND DURING THE YEAR.			EXPENDITURE INCURRED DURING THE YEAR.		
Reserved. (11)	Protected. (12)	Total. (13)	Reserved. (14)	Protected. (15)	Total. (16)	Reserved. (17)	Protected. (18)	Total. (19)
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
4	..	4	....	..	..	..	..	..
3	..	3	..	248	248	..	43,485	43,485
33	205	238	31	..	31	..	..	..
1,033	..	1,033	407	..	407	16,801	..	16,801
71	..	71	61	..	61	(c)	..	..
44	..	44	52	..	52	253	..	253
22	..	22	2	..	2	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
16	..	16	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
495	..	495	76	..	76	2,095	..	2,095
18	..	18	5	..	5	..	..	..
1,739	205	1,944	634	248	882	19,149	43,485	62,634
3,436	205	3,641	5,692	..	5,692	17,992	..	17,992
3,322	205	3,527	867	..	867	1,12,971	..	1,12,971
5,323	205	5,528	824	..	824	34,326	..	34,326
3,122	205	3,327	3,575	..	3,575	34,188	..	34,188

accounts " by Land Revenue Department.
accounts " by Land Revenue Department.

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	6	942	414	1,362	309	1,342	3,013	141	8,398
United Provinces..	4	1,502	2,927	4,433	3	1,575	6,011	3,581	7,920
Punjab	50	1,574	8,169	9,793	23	1,082	10,889	2	2,909
Burma	556	3,254	15,290	19,100	796	3,838	23,734	8,127	18,601
Bihar and Orissa	10	3,330	260	3,600	..	260	386	..	706
Assam	60	1,379	49	1,488	34	1,721	3,243	1,548	7,574
Central Provinces	138	12,905	19,753	32,796	170	3,151	36,117	1,298	19,806
Coorg	..	74	233	307	173	56	536	..	992
North-West Frontier Province.	..	194	583	777	..	139	916	..	526
Ajmer	..	26	217	243	..	158	401	..	258
Baluchistan ..	16	66	378	460	..	77	537	..	3
Andamans ..	4	1	74	79	..	118	197	1	1
Madras	529	17,783	16,669	34,981	646	1,758	37,385	24,516	18,853
Bombay ..	550	9,567	25,938	36,054	2,164	3,009	41,228	6,036	6,099
Total 1911-12	1,923	52,597	90,954	1,45,473	4,318	18,284	1,64,593	45,250	92,646
„ 1910-11	1,942	57,929	86,320	1,46,191	4,393	18,214	1,68,798	37,636	85,491
„ 1909-10	2,527	64,885	78,490	1,45,967	6,033	18,063	1,70,063	35,260	92,129
„ 1908-09	2,727	61.235	78,594	1,42,576	6,117	15,576	1,66,269	46,362	97,774
„ 1907-08	2,421	55,439	83,367	1,41,227	10,653	17,490	1,69,370	57,006	89,154

N.B—Boundaries include, besides the outer perimeter the limits of enclosures of private and other lands within the forests but not the limits of subdivisions, such as blocks, compartments and coupes.

STATEMENT IV.

Forest survey operations.

Province.	Forest surveyed.	Nature of survey operations. 1" Detail survey. Area.	1" Detail survey. Cost rate.	2" Detail survey. Area.	2" Detail survey. Cost rate.	4" Detail survey. Area.	4" Detail survey. Cost rate.	Total area of detail survey. 1911-1912.	Total area of detail survey. Total up to date.	Expenditure of the year in Printing map ping and publishing charges debitable to Forests.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	3,265	..	(*a*) 10 square miles previously surveyed on the 4 inch scale by the Forest Survey Branch, have been surveyed.
United Provinces ..	Naini Tal ..	..	..	..	..	..	..	..	4,139	516	(*b*) Excludes 64 square miles previously surveyed on the 4 inch scale by the Forest Survey Branch.
	Ramnagar ..	..	..	..	..	..	..	..		146	
	Bahraich ..	(*a*)	..	..	..	..	..	..			
Punjab	Lahore ..	(*b*) 33	14·4	..	..	..	..	33	4,365	..	(*c*) 192 miles of boundaries have been traversed on a scale of 4 inch — 1 mile.
Burma	Bhamo and Myitkyina.	..	..	(*c*) 215	50·9	..	..	..			(*d*) 164 miles of boundaries have been traversed on a scale of 4 inch 1 mile.
	Southern Shan State.	..	..	64	37·9	..	..	332	14,6 2	..	
	West Salween	..	..	53		..	..	..			
Bihar and Orissa ..	Singhbhum & Chaibassa.	..	..	(*d*) 4	39·2	..	..	4	(*e*) 1,689	..	(*e*) Includes 396 square miles of Forests in the Sambalpur Division taken from the Central Provinces.
Assam	Kamrup ..	..	..	77	38·7	..	..	77	2,413	..	(*f*) 707 miles of boundaries have been traversed on a scale of 4 inch 1 mile.
Central Provinces ..	Berar ..	..	..	(*f*) 310	56·5	..	..	310	(*g*) 18,910	675	(*g*) Excludes 396 square miles of Forests in the Sambalpur Division added to Bihar and Orissa.
Coorg	..	..	..	73	35·5	..	..	73	478	..	(*h*) $8\frac{1}{2}$ square miles previously surveyed on the 4 inch scale have been resurveyed.
North-West Frontier Province.	..	..	..	..	..	..	..	..	445	..	(*i*) Mapping and publishing charges of the Ganjam sheets.
Ajmer	..	..	..	..	..	..	..	..	144	..	(*j*) Mapping and publishing charges only and excludes Forest Map Office Headquarters charges Rs. 38,592 and the cost borne by the Survey of India.
Baluchistan	..	..	..	..	..	..	..	..	227	..	(*k*) Excludes Headquarters charges Rs. 39,171.
Andamans	..	..	..	..	..	..	..	..	..	.. (*i*)	(*l*) Excludes Headquarters charges Rs. 41,165.
Madras	South Kanara	..	..	77	35·5	..	..	77	15,139	490	(*m*) Excludes Headquarters charges Rs. 38,943.
	South Coimbatore.	..	..	(*h*)	..	..	..	..	..	.. (*j*)	(*n*) Excludes Headquarters charge Rs. 30,055.
Bombay	..	..	..	..	..	..	..	..	12,973	..	(*o*) Revised figures.
Total 1911-12	..	33	..	873	..	..	..	906	78,839	1,827 (*k*)	
„ 1910-11	..	395	..	446	..	..	..	841	77,933	1,926 (*l*)	
„ 1909-10	..	120	..	1,370	..	..	..	1,490	77,092	5,708 (*m*)	
„ 1908-09	..	29	..	1,881	..	70 (*o*)	..	1,980 (*o*)	75,602 (*o*)	9,935 (*n*)	
„ 1907-08	..	43	..	2,676	..	43	..	2,762	73,622	6,199	

STATEMENT V.

Progress made in Working-plans.

Provinces.	Areas for which Working-plans have been sanctioned by Local Governments.		Areas for which Working-plans are being compiled.		Areas for which Working-plans have still to be taken in hand.	Areas for which Working-plans are not at present required.	Total forest area as in Statement I.	Percentage of area under Working-plans to the total forest area.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.		
Bengal	(a) 914	3,800	(b) 26	17	(c) 5,647	..	10,404	9	(a) Excludes 17 square miles of other Reserves and 5 square miles of forests in Kurseong Division already included in the Darjeeling Working-plan.
United Provinces..	3,779	298	..	..	(d) 99	..	4,176	90	
Punjab	(d) 3,969	..	360	(e) 402	(d)& (e) 3,992	..	8,723	46	
Burma	7,425	231	(d) 2,176	776	(d) 126,745	..	137,353	5	(b) Excludes 101 square miles for which revised Working-plans are under preparation.
Bihar and Orissa ..	1,463	..	..	..	(f) 1,313	..	2,776	53	(c) Excludes 54 square miles of other protected forests.
Assam	1,134	..	..	..	3,187	18,404	22,725	5	(d) Revised areas.
Central Provinces	12,607	..	(d) & (h) 3,932	..	(d) 2,442	2,057	21,038	60	(e) Includes part of the 39 square miles for which a Working-plan is under preparation.
Coorg	130	..	(g) 77	..	313	..	520	25	
North-West Frontier Province.	236	..	..	..	..	..	236	100	(f) Excludes 927 square miles of other protected forests.
Ajmer	140	..	..	..	2	..	142	99	
Baluchistan ..	..	..	..	..	313	472	785	..	(g) Excludes 130 square miles for which a Working-plan is under preparation.
Andamans ..	317	..	..	..	1,852	..	2,169	15	
Madras	(d) 7,839	45	(d) 1,981	(i) 728	8,846	..	19,439	40	(h) Excludes 3,037 square miles for which revised Working-plans are under preparation, and 41 square miles for which Working-plans are being compiled.
Bombay ..	6,565	..	392	409	4,437	671	12,474	53	
									(i) The fact that a Working-plan for 60 square miles of forests was still to be prepared for Thenmalai Javadis was omitted to be noted in last year's return.
Total 1911-12.	46,518	4,374	8,944	2,332	159,188	21,604	242,960	19	
„ 1910-11.	49,144	1,039	5,946	4,641	157,067	25,641	243,478	20	
„ 1909-10	48,104	1,317	5,951	2,292	161,679	26,208	245,551	20	
„ 1908-09.	44,848	3,453	5,315	2,378	185,780	Included in column 6.	241,774	20	
„ 1907-08	42,441	2,711	7,357	2,559	182,741		237,809	19	

STATEMENT VI.

Expenditure on communications and buildings.

Province. (1)	New Works. Buildings. (2)	New Works. Roads. (3)	Repairs. Buildings. (4)	Repairs. Roads. (5)	Other Works. (6)	Total. (7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	35,491	12,245	14,978	13,007	5,445	81,166
United Provinces ..	46,138	12,152	33,535	50,219	14,304	1,56,348
Punjab	17,011	19,180	7,013	7,356	1,817	52,377
Burma	90,616	96,721	53,687	27,197	18,500	2,86,721
Bihar and Orissa ..	15,060	15,282	8,520	10,208	2,590	51,660
Assam	33,601	28,733	16,740	14,745	10,408	1,04,227
Central Provinces ..	46,535	43,984	28,099	23,366	46,437	1,88,421
Coorg	108	341	1,935	2,013	620	5,017
North-West Frontier Province.	5,117	249	515	1,910	56	7,847
Ajmer	140	12	25	33	118	328
Baluchistan	114	..	151	10	..	275
Andamans	1,670	..	559	1,097	1,026 (a)	4,352
Madras	1,51,288	61,190	44,630	83,428	23,529	3,64,065
Bombay	27,093	14,028	15,721	25,192	9,651	91,685
Total 1911-12 ..	4,69,982	3,04,117	2,26,108	2,59,781	1,34,501	13,94,489
„ 1910-11 ..	4,70,257	3,48,784	2,12,482	2,42,365	1,27,048	14,00,936
„ 1909-10 ..	5,37,292	2,45,800	1,92,224	1,93,356	1,31,296	12,99,968
„ 1908-09 ..	4,45,273	3,23,560	2,08,284	2,16,620	1,75,987	13,69,724
„ 1907-08 ..	4,64,060	3,48,394	1,81,440	2,01,237	1,75,692	13,70,823

(a) Cost incurred on temporary tram lines.

STATEMENT VII.

Breaches of forest rules.

Province.		Cases pending from 1910-1911.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	11)	(12)	(13)	(14)	(15)
Bengal	A.	25	3	111	20	49	183	208	167	533	28	203	195	736	13
	B.	56	4	709	570	55	1,338	1,394	1,312	2,783	..	..	1,312	2,783	82
	C.	..	11	4	..	3	18	18	..	..	..	..	..	..	..
	Total ..	81	18	824	590	107	1,539	1,620	1,479	3,316	28	203	1,507	3,519	95
United Provinces	A.	14	11	36	47	20	114	128	96	282	21	70	117	352	11
	B.	80	17	830	657	89	1,593	1,673	1,525	3,777	71	75	1,596	3,852	77
	C.	..	43	104	6	1	154	154	..	..	..	..	..	..	..
	Total ..	94	71	970	710	110	1,861	1,955	1,621	4,059	92	145	1,713	4,204	88
Punjab	A.	174	16	518	204	136	874	1,048	636	1,408	176	1,055	812	2,463	207
	B.	9	20	3,569	4,353	129	8,071	8,080	8,080	12,086	..	..	8,080	12,086	..
	C.	..	233	59	13	..	305	305	..	..	..	..	..	..	..
	Total ..	183	269	4,146	4,570	265	9,250	9,443	8,716	13,494	176	1,055	8,892	14,549	207
Burma	A.	241	26	686	42	157	911	1,152	771	1,659	123	308	894	1,967	202
	B.	260	11	1,881	114	1,170	3,176	3,436	2,856	4,205	41	46	2,897	4,251	474
	C.	..	31	100	..	10	141	141	..	..	..	..	..	..	..
	Total ..	501	68	2,667	156	1,337	4,228	4,729	3,627	5,864	164	354	3,791	6,218	676
Bihar and Orissa	A.	39	19	111	16	72	218	257	185	619	39	218	224	837	30
	B.	48	2	943	171	58	1,174	1,222	1,175	3,586	3	15	1,178	3,601	41
	C	..	65	4	..	..	69	69	..	..	..	..	..	..	..
	Total ..	87	86	1,058	187	130	1,461	1,548	1,360	4,205	42	233	1,402	4,438	71
Assam	A.	18	2	180	11	43	236	254	175	582	44	196	219	778	35
	B.	2	1	315	25	115	456	458	440	1,092	..	..	440	1,092	18
	C.	..	6	..	..	..	6	6	..	..	..	..	..	..	..
	Total ..	20	9	495	36	158	698	718	615	1,674	44	196	659	1,870	53
Central Provinces	A.	23	30	100	101	40	271	294	208	472	56	326	264	798	30
	B.	611	82	3,804	4,018	291	8,195	8,806	8,065	22,459	2	2	8,067	22,461	739
	C.	..	262	185	6	7	460	460	..	..	..	..	..	..	..
	Total ..	634	374	4,089	4,125	338	8,926	9,560	8,273	22,931	58	328	8,331	23,259	769
Coorg	A.	1	..	1	5	2	8	9	6	14	1	3	7	17	2
	B.	1	..	5	26	1	32	33	14	29	19	42	33	71	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	2	..	6	31	3	40	42	20	43	20	45	40	88	2
North-West Frontier Province.	A.	41	24	125	56	7	212	253	140	294	30	100	170	394	74
	B.	..	..	903	520	2	1,425	1,425	1,425	2,903	..	..	1,425	2,903	..
	C.	..	6	53	16	1	76	76	..	..	..	..	..	..	..
	Total ..	41	30	1,081	592	10	1,713	1,754	1,565	3,197	30	100	1,595	3,297	74

STATEMENT VII—*contd.*

Breaches of forest rules—contd.

Province.		New cases of the year.						Disposed of during the year.							Cases pending at close of year.
									Convictions.		Acquittals.		Total.		
		Cases pending from 1910-1911.	Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer	A.	..	..	19	2	1	22	22	22	48	..	1	22	47	..
	B.	..	1	369	268	5	643	643	633	1,438	10	39	643	1,477	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	1	388	270	6	665	665	655	1,486	10	40	665	1,524	..
Baluchistan	A.	1	..	17	6	..	23	24	22	59	..	..	22	59	2
	B.	..	..	23	7	..	30	30	30	56	..	..	30	56	..
	C.	..	1	1	..	..	2	2	..	..	..	..	..	..	..
Total ..		1	1	41	13	..	55	56	52	115	..	..	52	115	2
Andamans	A.	..	..	4	..	..	..	4	2	2	2	2	4	4	..
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	..	4	..	..	..	4	2	2	2	2	4	4	.
Madras	A.	1,505	84	3,836	1,587	342	5,399	6,904	4,794	13,437	5 0	1,761	5,363	9,798	1,423
	B.	3,814	66	14,142	6,676	746	21,630	25,444	19,274	43,174	182	511	19,456	43,685	4,481
	C.	13	1,119	438	381	28	1,966	1,979	..	..	..	..	..	..	..
Total ..		5,332	1,269	17,966	8,644	1,116	28,995	34,327	24,068	56,611	751	2,272	24,819	53,483	5,904
Bombay	A.	318	124	607	211	106	1,048	1,366	898	2,496	141	549	1,039	3,045	316
	B.	417	199	8,492	7,008	1,026	16,725	17,142	16,269	34,183	273	604	16,542	34,787	602
	C.	62	1,663	2,445	33	41	4,182	4,244	..	..	..	..	..	..	..
Total ..		797	1,986	11,544	7,252	1,173	21,955	22,752	17,167	36,679	414	1,153	17,581	37,832	918
Grand Total ..	A.	2,400	330	5,901	2,308	975	9,519	11,923	8,122	21,905	1,230	4,792	9,352	21,295	2,345
	B.	5,298	403	35,985	24,413	3,687	64,488	69,786	61,098	131,771	601	1,334	61,699	133,105	6,514
	C.	75	3,440	3,393	455	91	7,379	7,454	..	..	..	..	..	..	..
Total 1911-12 ..		7,773	4,182	45,279	27,176	4,753	81,386	89,163	69,220	1,53,676	1,831	6,126	71,051	1,54 100	8,859
„ 1910-11 ..		7,632	4,213	38,646	27,306	4,006	74,164	81,796	63,578	1,40,817	1,290	4,384	64,870	145,202	(a)7,686
„ 1909-10 ..		7,022	4,526	36,529	27,490	3,597	72,142	79,164	61,597	1,33,396	1,225	4,012	62,822	1,38,108	(b) 7,547
„ 1908-09 ..		6,982	3,615	37,238	26,173	4,274	71,300	78,282	60,511	1,36,237	1,443	5,180	61,954	1,41,417	7,022
„ 1907-08 ..		6,091	4,679	35,470	25,016	4,528	69,693	75,784	57,602	1,26,195	1,229	4,708	58,831	1,30,903	7,131

N. B.—A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.
(*a*) Excludes 7,285 undetected cases and 1,955 cases struck off.
(*b*) Excludes 1,780 cases struck off.

STATEMENT VIII.

Area protected from fire.

Province.	Area in Square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected.		Average of past 5 years to 1910-11.	1911-12.	
Bengal..	720	716	15·4	2·0	·6	
United Provinces	3,171	3,094	77·0	3·7	2·4	
Punjab	1,043	1,016	47·2	1·9	2·6	
Burma..	6,750	6,317	25·8	3·5	6·4	
Bihar and Orissa	1,623	1,617	94·4	(*b*)	·4	
Assam	(*a*) 1,393	(*a*) 1,351	32·2	4·0	3·0	
Central Provinces	11,149	10,764	53·0	4·2	3·5	
Coorg	173	168	33·3	2·8	2·9	
North-West Frontier Province ..	85	77	36·02	9·3	9·4	
Ajmer	141	141	99·3	0·4	..	
Madras	(*a*) 15,073	(*a*) 13,586	81·0	6·3	9·9	
Bombay	9,861	9,486	82·3	8·7	3·8	
Total 1911-12	51,182	48,333	53·2	5·6	5·5	
„ 1910-11	50,712	48,718	52·6	5·8	3·9	
„ 1909-10	48,510	45,768	50·3	5·6	5·7	
„ 1908-09	46,432	44,497	49·0	6·3	4·5	
„ 1907-08	45,695	42,577	48·8	7·1	6·8	

(*a*) Includes partially protected areas.

(*b*) Refers to the old Province of Eastern Bengal and Assam.

STATEMENT IX.

Causes of forest fires.

Province.	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the Fire-traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		Total.	
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Bengal	2	..	5	1	13 (a)	3	1	..	..	..	21	4
United Provinces ..	22	3·7	11	3·9	39	35·7	9	13·8	20	20·7	101	77·8
Punjab	16	·4	9	3	78	2·5	121	21·4	64	4·7	288	32·0
Burma	38	74·7	61	57·3	169 (b)	227·5	78	72·2	5	·8	351	432·5
Bihar and Orissa ..	1	·5	1	..	37 (a)	6·6	20	3·4	..	..	59	10·5
Assam	1	2·5	5	2·1	4	1	7	1·7	1	..	18	7·3
Central Provinces ..	63	19	42	53·7	82	152·3	6	7·9	114	152·2	307	385·1
Coorg	..	..	6	4·6	..	..	4	·8	2	..	12	5·4
North-West Frontier Province.	..	..	7	·4	3	..	27	7·8	6	..	43	8·2
Ajmer	1	..	..	..	..	..	..	..	..	..	1	..
Baluchistan	..	..	..	..	4	..	..	..	1	..	5	..
Andamans	..	..	..	..	..	..	..	..	..	..	..	..
Madras	57	5·9	177	337	338	235	461	349·1	660	539·5	1,693	1,466·5
Bombay	80	24·8	127	24·5	1,015 (c)	169·4	137	57·9	651	138·5	2,010	415·1
Total 1911-12 ..	281	131·5	451	487·5	1,782	833·0	871	536·0	1,524	856·4	4,909	2,844·4
„ 1910-11 ..	260	90·8	480	344·5	1,746	687·4	765	400·7	1,652	681·0	4,903	2,204·4
„ 1909-10 ..	321	152·0	515	654·9	2,102	529·5	652	597·4	1,722	1,320·8	5,312	3254·9
„ 1908-09 ..	302	77·0	394	496·7	2,651 (a)	1,015·4	441	313·8	Included in columns 6 and 7	..	3,788	1,902·9
„ 1907-08 ..	351	223·7	551	676·9	3,572 (a)	1,678·4	727	596·6		..	5,201	3,175·6

(a) Includes fires due to unknown causes.
(b) Includes fires due to unknown causes in the Pegu, Northern and Southern Circles.
(c) Includes fires due to unknown causes in the Northern and Sind Circles.

STATEMENT X.

Area closed and open to grazing.

Province.	Area in square miles.						Remarks.
	Closed to all animals.		Closed to browsers, camels, goats or sheep.		Open to all animals.	Total area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	5,480	7	155	63	4,770	(a) 10,475	(a) Includes 17 square miles of other reserves and 54 square miles of other protected forests.
United Provinces.. ..	2,176	126	665	..	1,209	4,176	
Punjab	174	605	623	42	7,279	8,723	
Burma	19,475	5,344	218	6	1,12,310	1,37,353	
Bihar and Orissa ..	1,422	..	746	..	1,535	(b) 3,703	(b) Includes 927 square miles of other protected forests not under the management of the Forest Department.
Assam	3,948	..	197	..	18,580	22,725	
Central Provinces ..	3,470	504	9,294	111	7,659	21,038	
Coorg	169	351	(c)	..	..	520	(c) The whole area is closed to browsers.
North-West Frontier Province.	51	..	138	..	47	236	
Ajmer	1	138	(c)	..	3	142	
Baluchistan	204	10	13	8	550	785	
Andamans	156	..	..	..	2,013	2,169	
Madras	2,778	266	294	..	16,101	(d) 19,439	(d) Of the total area 16,256 square miles were closed to goats only.
Bombay	2,064	309	9,071	131	3,291	(e) 15,066	(e) Includes 2,592 square miles not under the management of the Forest Department.
Total 1911-12 ..	41,568	7,660	21,414	561	1,75,347	2,46,550	
„ 1910-11 ..	42,692	6,753	21,123	179	1,76,348	2,47,095	
„ 1909-10 ..	43,205	6,693	20,015	195	1,78,517	2,48,625	
„ 1908-09 ..	Figures not available.						
„ 1907-08 ..							

STATE

Protection

PROVINCE.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.									
	AT FULL RATES.					AT PRIVILEGED RATES.				
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	9,673	4,134	536	..	34	286	107,125	63	..	28
United Provinces ..	74,458	1,84,265	94,833	1,168	10,540	33,203	1,31,750	99,309	..	436
Punjab	26,378	159,103	3,02,700	12,581	1,224	92	8,072	2,53,226	..	19
Burma	2,847	16,241	2,635	50	26	38	35	..	..	1
Bihar and Orissa ..	8,886	31,269	4,738	..	..	9,065	1,49,315	12,500	..	500
Assam	47,056	17,633	986	..	854	777	96	..	..	..
Central Provinces ..	4,47,075	1,683,070	6,03,527	91	10,015	65,975	1,326,769	21,835	..	77
Coorg	314	1,586	..	..	..	..	..	..	..	..
North-West Frontier Province.	1,867	2,124	285	..	101	..	..	..	..	..
Ajmer	557	4,419	..	..	..	3,612	20,825	..	..	..
Baluchistan	546	8,007	2,000	..	17	..	..	..	..	..
Madras	1,05,003	9,56,809	12,83,136	..	184	22,231	94,516	39,832	..	..
Bombay	20,740	(a) 1,50,821	48,766	997	2,434	1,74,328	(a) 12,95,975	1,65,566	4	13,895
Total 1911-12 ..	7,45,400	3,219,481	2,344,142	14,887	25,429	3,09,607	3,134,478	5,92,331	4	14,956
„ 1910-11 ..	7,15,773	2,987,791	2,466,844	17,796	23,411	2,49,155	2,797,571	5,79,293	6	4,511
„ 1909-10 ..	7,20,893	3,603,674	2,760,872	13,374	21,702	1,48,827	1,807,268	5,76,177	59	3,518
„ 1908-09 ..	8,60,729	4,547,396	3,342,919	15,381	24,985	1,62,773	1,891,704	5,75,115	50	5,965
„ 1907-08 ..	6,28,263	3,955,142	3,247,292	20,928	33,266	225,677	1,687,295	5,90,358	191	5,652

* Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
BY RIGHT UNDER SETTLEMENT.					DURING PLEASURE OF GOVERNMENT OR OTHERWISE THAN UNDER SETTLEMENT.				
Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
..	..	..	..	..	11	246	..	..	3
22,000	137,168	44,803	..	1,634	3,801	19,378	369	..	90
139,388	651,305	1,315,091	307	180,562	2,997	33,479	79	1,393	26
72,517	235,100	16	..	8	1,535	95	..	..	2,112
30,866	82,734	21,000	..	..	55	..	..	..	..
..	60	..	..	..	73,902	402,406	81,690	..	573
..	374	..	..	..	630	243,970	729	..	112
..	210	..	..	..	..	..	..	..	..
5,222	10,449	..	..	..	10,120	29,426	..	..	200
..	..	..	..	..	3,612	21,276	..	..	..
..	3,310	53,226	1	1,193	..	..	..	..	..
159	2,338	5,271	..	..	6,472	50,053	720	..	..
2,398	8,812	..	..	84	115,994	(a) 437,050	1,570	896	4,209
272,550	1,131,860	1,439,407	308	183,481	219,129	1,237,379	85,157	2,289	7,325
246,675	1,106,321	1,404,539	310	183,176	151,658	957,507	84,121	10,948	5,041
245,007	1,095,949	1,054,986	310	182,777	162,256	977,392	84,358	7,881	5,265
257,681	1,236,268	791,327	401	16,985	128,149	806,629	77,254	4,701	5,282
244,966	1,135,089	800,972	285	15,222	280,770	1,467,382	132,781	5,243	5,812

STATEMENT XII.

Area of plantations and the cost of the year's work

Province. (1)	Area in acres at close of the year. Regular Plantations. (2)	Taungyas. (3)	Total. (4)	Cost of operations during the year. (5)
Bengal	1,184	115	1,299	723
United Provinces	5,074	..	5,074	2,475
Punjab	(a) 175	..	175	4,668
Burma	3,595	76,629	80,224	23,991
Bihar and Orissa	909	..	909	(b) 893
Assam	3,216	..	3,216	6,364
Central Provinces	786	5,485	6,271	502
Coorg	2,062	1,973	4,035	2,571
North-West Frontier Province	..	..	..	..
Ajmer	65	..	65	2,202
Baluchistan	46	..	46	281
Andamans	871	1,300	2,171	6,081
Madras	30,079	2,481	32,560	149,175
Bombay	12,572	..	12,572	25,924
Total 1911-12	60,634	87,983	148,617	2,25,850
„ 1910-11	59,092	87,089	146,181	2,64,725
„ 1909-10	62,078	84,721	146,799	2,76,920
„ 1908-09	58,780	84,123	142,903	2,35,803
„ 1907-08	61,245	83,171	144,416	2,36,966

(a) 680 acres excluded during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile.							
									Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal	20,769,495	2,33,557	17,33,125	20,428	1,127,323	30,357	23,629,943	2,84,342	4,454	50	1,013	12	280	8	2,271	27
United Provinces	17,617,250	8,38,617	548,032	4,504	33,558	1,069	18,198,840	8,44,190	4,279	204	18,268	150	1,157	37	4,358	202
Punjab	8,891,295	11,00,116	10,256,279	11,93,933	1,364,810	51,193	20,512,384	23,45,242	4,027	498	1,971	229	1,040	39	2,352	269
Burma	12,244,718	3,58,409	..	..	36,611,006	3,05,706	48,855,724	6,64,115	469	14	..	..	329	3	356	5
Bihar and Orissa	2,533,003	84,739	14,434,574	2,51,773	2,876	..	16,970,453	3,36,512	1,474	49	13,656	238	..	..	6,113	121
Assam	1,388,886	90,762	..	..	12,898,851	6,72,436	14,287,737	7,63,198	321	21	..	..	701	37	629	34
Central Provinces	32,027,104	18,40,258	..	..	..	..	32,027,104	18,40,258	1,522	87	..	..	..	..	1,522	87
Coorg	2,65,991	22,797	168,715	200	..	..	434,706	22,997	512	44	..	..	..	..	836	44
North-West Frontier Province	(a) 1,078,889	41,050	..	..	..	..	1,078,889	41,050	4,572	174	..	..	..	..	4,572	174
Ajmer	3,41,880	22,847	..	115	..	..	3,41,880	22,962	2,408	161	..	..	..	..	2,408	162
Baluchistan	68,947	43,486	..	..	271,069	62	340,016	43,548	220	140	..	..	574	..	433	55
Andamans	1,297,238	2,466	..	..	965,936	2,018	2,263,174	4,484	8,316	16	..	..	480	1	1,043	2
Madras	19,107,743	18,00,756	..	..	(c) 9,029,121	(c) 50,028	28,136,864	18,50,784	1,027	97	..	..	(b)	(b)	(b)	(b)
Bombay	48,906,164	15,71,044	1,210,545	..	..	..	50,116,709	15,71,044	4,083	131	2,446	..	..	..	4,018	126
Total 1911-12 ..	166,538,603	80,50,904	28,351,270	14,70,953	62,304,550	11,12,869	257,194,423	1,06,34,726	1,732	84	3,337	173	450	8	1,059	44
1910-11 ..	160,096,649	73,24,167	37,918,742	8,51,191	62,567,784	13,52,464	260,583,175	95,27,822	1,661	76	4,457	100	451	10	1,070	39
1909-10 ..	148,584,547	65,72,945	35,563,965	5,10,160	56,984,418	12,28,313	241,132,930	83,11,418	1,540	68	4,035	58	406	9	982	34
1908-09 ..		Full details not available.					232,035,865	79,00,028		Full details not available.					960	33
1907-08 ..							234,982,123	82,67,161							996	35

(a) Excludes lapsed or seized timber.
(b) The area of land from which revenue has been derived is not known.
(c) Outturn of reserved and unreserved lands.

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

Province.	Timber.					Fuel.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	149,748	6,450,390	3,612	..	6,603,750	29,655	15,179,142	29,871	1,787,525	17,026,193
United Provinces	72,313	5,864,526	60,494	2,90,260	6,287,593	886,410	7,903,939	314,297	2,806,601	11,911,247
Punjab	408,216	2,416,575	128,989	1,154,452	4,108,232	1,045,145	2,716,276	121,432	12,521,299	16,404,152
Burma	2,510,444	28,121,793	1,031,322	1,570,406	33,233,965	797,432	13,721,808	221,955	880,564	15,621,759
Bihar and Orissa	15,132	854,591	35,120	205,574	1,110,417	12,875	1,839,813	3,474	14,003,874	15,860,036
Assam	377,382	4,486,757	601,905	..	5,465,844	17,474	4,038,649	4,758,570	7,200	8,821,893
Central Provinces	738,147	5,794,618	159,210	31,124	6,723,099	1,148,789	21,723,884	1,009,520	1,421,812	25,304,005
Coorg	163,083	252,973	2,475	..	318,531	11,275	104,900	..	..	116,175
North-West Frontier Province	6,635	488,359	25,416	5,530	5,25,940	122,959	379,026	15,984	34,980	552,949
Ajmer	42	2,309	..	1,786	4,137	60,669	275,174	1,900	..	337,743
Baluchistan	2,247	5,121	11,526	..	18,894	82,791	2,38,331	..	..	321,122
Andamans	474,781	39,641	32,535	46,548	593,505	1,316,489	51,120	260,240	41,280	1,669,669
Madras	782,576	(a) 2,993,880	159,837	52,554	(a) 3,988,847	12,557,893	(b) 11,390,649	44,616	154,859	(b) 24,148,017
Bombay	859,991	4,265,230	103,825	120,000	5,349,046	4,199,828	27,874,407	40,805	12,652,623	44,767,663
Total 1911-12	6,560,737	62,036,563	2,356,266	3,478,234	74,331,800	22,289,684	107,437,118	6,822,664	46,312,617	182,862,623
„ 1910-11	6,754,486	60,347,327	2,148,514	3,261,808	72,512,145	21,811,830	110,724,396	6,723,782	75,009,022	188,071,030
„ 1909-10	6,734,088	54,516,295	2,130,724	2,609,490	65,990,597	22,413,511	90,751,966	5,911,229	56,065,627	175,142,333
„ 1908-09	6,758,266	53,274,103	1,814,338	2,563,187	64,409,894	20,104,263	94,238,730	6,157,792	47,125,156	167,625,971
„ 1907-08	7,823,674	52,965,071	2,112,544	2,464,266	65,365,555	21,546,742	92,015,666	7,653,314	48,400,846	169,616,568

(a) Exclusive of 8,507 cubic feet obtained by confiscation.
(b) Exclusive of 19,735 cubic feet obtained by confiscation.

STATEMENT XIV—*contd.*

Forest produce removed by different agencies—contd.

Part II.—Value of minor forest produce.

Province.	Bamboos.					Grazing and Fodder Grass.					Other Minor Produce.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By Purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	18	51,243	5	10,364	61,630	..	53,591	6,885	26,077	86,553	176	1,35,252	191	..	1,36,159
United Provinces ..	132	2,28,170	505	1,046	229,853	162	1,31,585	33,570	78,867	2,44,184	1,30,590	2,31,123	5,916	2,524	3,70,153
Punjab	3,260	11,744	..	336	15,340	1	1,76,127	11,530	19,87,629	21,75,287	98,005	12,248	17	44,345	1,54,615
Burma	193	2,17,471	338	15,850	2,33,852	..	6,420	16,929	2,09,059	2,32,408	3,568	150,772	716	42,799	1,97,855
Bihar and Orissa ..	13,253	23,738	167	20,035	57,193	..	7,845	55	82,379	90,279	1,132	56,152	19	1,31,737	1,89,040
Assam	131	37,878	5,859	..	43,868	..	40,524	192 100	15	2,41,639	43,810	1,95,041	2,38,840	..	4,77,691
Central Provinces ..	8,684	2,07,160	3 209	9,575	2,28,628	2,00,741	10,41,389	36,703	17,559	12,96,392	9,335	2,90,379	7,047	8,477	3,15,238
Coorg	..	1,273	47	..	1,320	..	601	..	52	653	..	21,019	..	5	21,024
North-West Frontier Province	..	..	..	..	..	..	11,618	22,076	6,210	40,804	129	110	7	..	246
Ajmer	..	556	..	..	556	883	..	..	17,004	20,014	386	1,106	..	..	1,492
Baluchistan ..	..	..	..	..	..	..	1,389	103	41,470	42,859	32	565	92	..	689
Andamans ..	40	36	272	117	465	..	..	..	..	..	911	207	2,766	135	4,019
Madras	97,124	2,03,785	2,778	358	3,04,045	1,465	6,31,861	575	3,248	6,37,149	50,953	8,56,590	536	1,511	9,09,590
Bombay	271	83,313	1,323	22,814	1,12,721	1,36,897	4,75,201	30,531	443,878	10,86,507	1,20,349	1,75,088	1,365	74,114	3,71,816
Total 1911-12 ..	1,23,106	10,71,367	14,503	80,495	10,89,471	3,40,149	25,90,178	3,51,957	29,13,447	61,95,628	4,59,916	21,26,552	2,57,512	3,05,647	31,49,627
„ 1910-11 ..	1,20,352	9,44,280	12,204	84,104	11,60,940	10,521	24,63,347	2,67,505	22,14,020	49,55,393	2,83,744	20,52,922	2,76,733	7,97,507	34,10,906
„ 1909-10 ..	1,15,827	9,26,627	9,294	1,03,059	11,54,807	15,668	25,19,907	2,45,636	8,12,436	35,93,647	3,48,747	21,07,944	2,48,075	8,58,198	35,62,964
„ 1908-09 ..	1,10,111	7,50,323	..	(a) 1,00,851	9,61,285	Included in columns 12-16			..	..	2,95,435	45,90,483	4,79,059	15,73,766	69,38,743
„ 1907-08 ..	1,29,095	7,51,533	..	(a) 2,37,292	11,27,920						3,32,571	46,53,786	7,68 135	13,84,749	71,39,241

(a) Includes free grants.

STATEMENT XV.

Exports of forest produce.

Articles of forest produce.	Quantity in tons of 20 cwt. in the case of teak, cubic tons.		Valuation at port of shipment in 1911-12.	
	Average of 5 years 1906-07 to 1910-11.	In 1911-12.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc, (raw)	149	448	34,59,037	7,721
Lac .. Button	1,888	1,484	15,57,306	1,049
Lac .. Shell	16,258	17,559	1,78,11,215	1,014
Lac .. Stick, seed and other kinds ..	1,747	2,357	7,71,884	327
Cutch and gambier	3,838	4,050	12,98,002	320
Myrabolams	72,483	61,683	50,02,796	81
Cardamums	127	135	4,06,323	3,010
Sandal, Ebony and other ornamental woods ..	(a)	(a)	13,53,194	..
Teak	39,934	48,375	73,15,790	151
Other timbers (excluding firewood)	5,131	6,620	6,61,385	100
Total 1911-12 ..			3,96,36,932	
„ 1910-11 ..			4,26,71,543	
„ 1909-10 ..			(b) 4,20,96,717	
„ 1908-09 ..			(b) 4,06,20,228	
„ 1907-08 ..			5,63,69,672	

(a) Quantity (whether by weight or measurement) not recorded.
(b) Corrected figure. Includes " other timbers " previously excluded.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Grass and grazing.	Other Minor produce.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	193	18,655	10,369	32,962	191	62,370
United Provinces	41,474	45,675	1,551	1,19,673	8,440	2,16,813
Punjab	50,559	6,38,543	336	20,15,564	44,362	27,49,364
Burma	2,07,107	7,166	18,966	2,25,988	40,737	4,99,964
Bihar and Orissa	17,637	1,24,450	20,202	82,434	1,31,756	3,76,479
Assam	32,761	66,279	5,859	1,92,716	2,38,837	5,36,452
Central Provinces	14,760	70,042	38,470	2,93,606	46,713	4,63,591
Coorg	..	..	102	52	..	154
North-West Frontier Province	3,682	1,029	..	29,086	107	33,904
Ajmer	223	190	..	17,004	85	17,502
Baluchistan	(a) 1,000	..	..	41,470	195	42,665
Andamans	1,593	7,552	389	..	2,901	12,435
Madras	36,595	4,015	3,136	3,909	34,611	72,266
Bombay	1,14,350	8,02,072	24,137	7,07,871	2,55,479	19,03,909
Total 1911-12	5,21,934	17,85,668	1,23,517	37,62,335	7,94,414	69,87,868
„ 1910-11	4,95,091	13,50,942	1,24,953	26,03,134	7,84,434	53,58,554
„ 1909-10	5,91,704	12,73,626	1,12,783	19,86,080	7,07,099	46,71,292
„ 1908-09	4,95,943	16,46,785	1,00,851	13,50,711	10,03,160	45,97,450
„ 1907-08	5,12,037	16,42,333	2,37,292	18,85,296	6,76,361	49,53,319

(a) Estimated figure.

STATEMENT XVII.

Details of revenue and expenditure for the Forest year, 1911-12.

				Rs.
Gross Receipts ..	(*a*) Wood ..			2,15,01,799
	(*b*) Minor forest produce			30,35,427
	(*c*) Forest stamps and commutation fees for forest produce			1,33,413
	(*d*) Grazing			26,00,985
	(*e*) Revenue from forests not managed by Government			3,13,026
	(*f*) Miscellaneous			12,88,434
		Total Revenue	..	2,88,73,084
Expenditure ..	A. Recurring ..	(*a*) Administration.	(*i*) Superior Staff	33,87,802
			(*ii*) Subordinate Staff (including Rangers, Foresters and Guards).	30,77,272
			(*iii*) Office Establishments (including Contingencies).	16,84,472
		(*b*) Working	(1) Extraction	42,23,303
			(2) Roads and Buildings	14,67,850
			(3) Fire-protection	6,72,404
			(4) Cultural operations	7,05,858
			(5) Live-stock, stores and plant	5,97,846
			(6) Working-Plans	74,000
			(7) Rent for leased forests	3,04,954
			(8) Miscellaneous	2,29,051
		(*c*) Expenditure on realization of revenue from forests not managed by Government.		7,211
		(*d*) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute*.)		2,62,627
			Total ..	1,66,94,650
	B. Extraordinary ..	(*e*) Forest Settlement		6,94,236
		(*f*) Forest Survey		39,651
		(*g*) Forest Demarcation		1,44,607
			Total ..	3,78,494
			GRAND TOTAL OF EXPENDITURE ..	1,70,73,144
			Net Revenue ..	1,17,99,940

* Expenditure under this head in provinces has been included in (*a*) administration.

STATE

Summary of revenue and expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Bihar and Orissa.	Assam.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
REVENUE	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the forests by Government agency	5,299	23,647	2,89,599	2,28,841	26,12,112	20,696	2,31,992
II.—Timber and other produce removed from the forests by consumers or purchasers.	5,381	10,61,273	26,10,292	8,63,633	66,89,656	3,73,588	7,27,982
III.—Drift and waif wood and confiscated forest produce.	..	4,632	19,982	54,062	2,53,586	194	22,568
IV.—Revenue from forests not managed by Government.	..	..	7,826	5,031	1,86,548	..	91,842
V.—Miscellaneous	..	32,890	88,461	1,58,510	2,25,692	12,735	71,936
Total Revenue	(a) 10,680	11,22,442	30,16,160	13,10,077	99,67,594	4,07,213	11,46,320
EXPENDITURE.							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forest by Government Agency.	485	14,964	1,73,127	1,02,457	8,10,300	14,202	2,02,570
II.—Timber and other produce removed from the forests by consumers or purchasers.	..	1,05,481	56,436	6,476	1,12,283	10,007	11,047
III.—Drift and waif wood and confiscated forest produce.	..	1,218	5,648	23,278	99,550	1	376
IV.—Revenue from forests not managed by Government.	..	..	4,151	..	159	..	4,282
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	..	41,308	69,681	45,237	..	41,308	36,631
VI.—Live-stock, stores, tools and plant	..	39,327	33,484	10,746	1,49,825	3,550	28,908
VII.—Communications and buildings ..	..	76,839	2,04,358	66,894	3,06,820	49,903	95,518
VIII.—Demarcation, improvement and extension of forests.	379	40,546	1,99,414	49,626	4,76,448	24,021	37,749
IX.—Miscellaneous	..	4,431	33,537	6,769	35,534	2,352	6,881
Total A.—Conservancy and Works	(b) 864	3,24,114	7,79,836	3,11,483	19,90,919	1,45,344	4,23,962
B.—Establishments.							
I.—Salaries	(d) 93,492	3,20,904	4,63,532	3,43,811	17,62,227	1,28,808	3,31,972
II.—Travelling Allowances	(c) 134	48,077	72,803	70,229	2,98,076	21,083	55,769
III.—Contingencies	(c) 224	13,279	47,502	39,623	79,940	5,681	29,310
Total B.—Establishments ..	93,850	3,82,260	5,83,837	4,53,663	21,40,243	1,55,572	4,17,051
Grand Total of Expenditure ..	94,714	7,06,374	13,63,673	7,65,146	41,31,162	3,00,916	8,41,013
Surplus	..	4,16,068	16,52,487	5,44,931	58,36,432	1,06,297	3,05,307
Deficit	84,034	..	..	..	..	..	..
Proportion of surplus to gross revenue..	..	37	55	42	59	26	27
Net revenue per square mile of forest area under control of Forest Department.	..	40	396	62	42	38	13

(a) Represents revenue derived from Indore, also Rs. 315 from Bangalore.
(b) „ expenditure on account of Indore, also Rs. 74 on account of Bangalore.

MENT XVIII.

Forest Department in India for the financial year 1911-12.

Central Provinces. (9)	Coorg. (10)	North-West Frontier Province. (11)	Ajmer. (12)	Baluchistan. (13)	Andamans. (14)	Imperial Forest College and Research Institute. (15)	Forest Surveys. (Imperial). (16)	Madras. (17)	Bombay. (18)	TOTAL. (19)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2,29,392	2,22,921	44,334	8,150	10,110	5,14,901	..	..	14,94,015	15,19,060	74,55,069
22,14,275	60,557	98,331	16,724	2,357	6,726	..	..	23,65,358	26,77,793	1,97,73,926
1,654	..	379	27	..	..	..	..	16,904	5,268	3,79,256
150	..	4,162	..	7,336	..	..	..	..	9,191	3,12,086
1,04,383	11,692	10,965	1,460	314	533	5,550	..	2,92,644	1,19,257	11,37,022
25,49,854	2,95,170	1,58,171	26,361	20,117	5,22,160	5,550	..	41,68,921	43,30,569	2,90,57,359
1,53,504	24,659	17,094	4,489	6,991	1,37,058	..	..	7,27,990	9,13,834	33,03,724
1,17,746	..	263	250	..	..	..	..	1,19,772	41,045	5,80,806
22	..	15	..	..	..	..	..	1,714	359	1,32,181
..	..	..	..	187	..	..	..	..	..	8,779
..	..	7,960	..	..	..	..	..	17,118	33,960	2,93,203
79,209	8,500	518	96	101	61,524	8,214	..	1,55,600	67,298	6,46,900
1,85,073	4,110	7,608	551	324	2,563	10,492	..	3,56,553	1,09,914	14,77,520
1,97,522	15,222	3,718	2,987	71	6,762	..	38,798	5,97,444	1,48,545	18,39,252
25,838	1,094	1,561	193	290	2,142	18,995	..	9,686	74,606	2,23,909
7,58,914	53,585	38,737	8,566	7,964	2,10,049	37,701	38,798	19,85,877	13,89,561	85,06,274
9,05,862	57,759	41,481	11,019	18,315	45,328	1,83,789	..	10,95,650	10,92,721	68,96,670
89,680	7,876	6,157	1,754	2,183	5,591	14,593	..	2,24,545	1,24,276	10,42,826
83,923	1,954	3,061	1,004	485	764	27,358	..	1,08,810	57,878	5,00,796
10,79,465	67,589	50,699	13,777	20,983	51,683	2,25,740	..	14,29,005	12,74,875	84,40,292
18,38,379	1,21,174	89,436	22,343	28,947	2,61,732	2,63,441	38,798	34,14,882	26,64,436	1,69,46,566
7,11,475	1,73,996	68,735	4,018	..	2,60,428	..	..	7,54,039	16,66,133	1,21,10,793
..	..	..	..	8,830	..	2,57,891	38,798	..	..	..
28	59	43	15	..	50	..	..	18	38	42
34	335	291	28	..	120	..	..	39	134	..

(*c*) Represents expenditure on account of Indore.
(*d*) Includes Rs. 2,801 expenditure on account of Indore and Rs. 3 on account of Bangalore.

Revenue, expenditure and surplus of the Forest Department

(I) RE

Province.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial*	4,847	4,017	4,759	6,370	6,688	5,240	2,680	4,980	2,690	4,100	19,130	17,540
Bengal†	6,57,794	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710	13,70,850	11,89,280	9,72,310
United Provinces ..	12,47,454	14,62,802	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860	16,58,250	16,01,340	14,44,820	13,86,670	15,68,040
Punjab	7,86,936	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500	11,07,720	10,68,470	14,74,430
Burma	25,15,773	41,89,233	49,40,786	43,21,968	41,85,414	56,60,000	57,85,100	54,36,780	56,95,830	63,78,950	72,15,260	83,50,890
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	2,67,312	3,03,882	3,79,498	3,26,793	3,36,129	3,82,830	4,88,500	4,35,090	4,25,030	4,36,440	3,84,820	3,98,180
Central Provinces ..	15,00,412	15,88,382	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140	11,80,400	14,34,940
Coorg	1,27,028	1,36,183	92,753	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910	1,55,070
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	14,293	13,574	11,592	15,266	19,799	14,890	14,620	12,840	15,640	12,370	15,540	14,420
Baluchistan	14,063	5,668	13,897	15,724	20,609	19,030	20,730	16,300	14,930	15,460	15,040	14,920
Andamans	1,04,062	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710	2,29,460
Imperial Forest College and Research Institute.	777	449	1,237	1,184	1,788	1,980	1,990	2,790	4,310	2,850	2,890	2,360
Forest Surveys (Imperial	40	315	220	2,104	257	520	240	80	510	400	220	290
Total ..	72,40,791	95,33,255	1,06,08,249	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14,52,140	1,25,20,470	1,30,42,340	1,46,32,850
Madras	13,74,920	15,15,006	15,57,627	17,95,408	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	23,03,330	21,36,490	21,10,520
Bombay	30,32,577	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670	30,32,710	26,16,660	22,95,150
Grand Total ..	1,16,48,288	1,38,98,451	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490	1,90,38,520

(II) EXPEN

Imperial*	78,626	86,199	81,311	85,414	65,788	1,07,270	80,840	84,950	80,410	78,960	84,300	85,460
Bengal†	3,90,368	3,76,270	3,98,150	4,14,004	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070	6,90,040	6,53,440	4,86,320
United Provinces ..	8,30,748	8,44,544	9,63,151	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860	9,06,340	9,17,850	9,72,030
Punjab	6,77,912	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7,23,300	7,71,940	8,55,340
Burma	11,53,846	20,17,073	16,06,644	13,88,789	16,98,980	18,05,000	18,62,500	19,17,990	19,33,600	21,28,820	21,96,610	24,26,190
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	2,26,892	2,09,905	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010	2,88,830	3,05,360
Central Provinces ..	7,78,802	8,62,864	8,79,458	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860	11,65,490	11,09,400
Coorg	72,629	80,175	72,420	65,818	86,860	73,090	86,890	86,140	85,840	71,630	87,020	80,100
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	18,897	15,676	12,701	12,720	13,986	15,000	15,900	14,900	15,730	22,010	14,670	16,300
Baluchistan	17,753	15,994	17,962	29,450	30,497	55,620	63,730	40,910	41,770	29,770	27,330	27,760
Andamans	62,679	57,295	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600	2,47,340	1,38,400
Imperial Forest College and Research Institute.	33,129	32,961	29,646	35,191	44,347	50,400	65,530	65,980	67,950	67,380	60,920	63,370
Forest Surveys (Imperial)	32,868	22,164	21,188	24,324	26,882	22,160	27,900	29,840	29,950	31,970	33,950	33,970
Total ..	43,75,149	52,15,005	50,80,590	49,46,325	54,38,471	56,70,870	59,05,990	59,19,020	59,28,610	65,41,690	65,49,690	66,00,000
Madras	11,29,212	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,300	15,72,850	15,94,670
Bombay	19,44,005	16,93,962	17,70,691	18,69,887	19,31,457	19,04,970	20,71,940	20,67,920	19,58,390	19,69,160	20,73,190	18,39,250
Grand Total ..	74,48,366	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920

(III)

Imperial*	—73,779	—82,182	—76,552	—79,044	—59,100	—1,02,030	—78,160	—79,970	—77,720	—74,860	—65,170	—67,920
Bengal†	2,67,426	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,89,280	4,52,640	6,80,810	5,35,840	4,85,990
United Provinces ..	4,16,706	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	5,38,480	4,68,820	5,96,090
Punjab	1,09,024	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530	6,19,010
Burma	13,61,927	21,72,160	33,34,142	29,33,179	24,86,434	38,55,000	39,22,600	35,18,790	37,62,230	42,50,130	50,18,650	59,24,700
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	40,420	93,977	1,22,369	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990	92,820
Central Provinces ..	7,21,610	7,25,518	7,17,264	7,96,095	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430	98,280	14,910	3,25,540
Coorg	54,399	56,008	20,333	69,743	96,037	1,07,590	86,900	66,910	49,410	21,370	43,890	74,970
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	—4,604	—2,102	—1,109	2,546	5,813	—110	—1,280	—2,060	—90	—9,640	870	—1,880
Baluchistan	—3,690	—10,326	—4,065	—13,726	—9,838	—36,590	—43,000	—24,610	—26,840	—14,810	—12,290	—12,840
Andamans	41,383	48,780	67,220	28,274	92,429	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370	91,060
Imperial Forest College and Research Institute.	—32,352	—32,512	—28,409	—34,007	—42,559	—48,420	—63,540	—63,190	—63,640	—64,530	—58,030	61,010
Forest Surveys, (Imperial).	—32,823	—21,849	—20,963	—22,220	—26,625	—21,640	—27,660	—29,760	—29,440	31,570	—33,730	—33,680
Total ..	28,65,642	43,18,250	55,27,659	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78,780	64,92,650	80,32,850
Madras	2,45,708	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960	7,69,030	5,63,640	5,15,850
Bombay	10,88,572	11,56,223	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550	5,43,470	4,54,900
Grand Total ..	41,99,922	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600

*Includes pay of Inspector General of Forests, Assistant Inspector-General of Forests, Office Establishment and undistributable and petty local items and revenue and
† Includes figures up to 1910-11 for districts subsequently transferred to Bihar and Orissa.
‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred to Bengal.

throughout India during the 25 financial years from 1887-88 to 1911-12.

VENUE.

1899-00.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	PROVINCE.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
6,090	2,463	3,484	3,659	7,455	3,768	7,255	..	7,666	8,189	10,632	8,662	10,680	Imperial. *
11,38,910	12,33,339	12,92,237	12,56,247	10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11,84,845	10,80,640	11,67,444	11,22,442	Bengal. †
16,14,740	15,65,463	17,15,508	20,25,324	22,80,446	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	23,78,439	30,16,160	United Provinces.
14,00,770	13,50,842	14,47,558	15,86,408	17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,633	12,17,988	13,10,077	Punjab.
78,12,050	80,54,444	58,73,938	67,39,053	82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	19,92,032	93,58,077	1,00,70,117	99,67,594	Burma.
..	..	..	..	..	..	..	..	..	..	..	..	4,07,213	Bihar and Orissa.
5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,34,732	18,90,635	11,46,320	Assam. ‡
12,97,490	12,65,614	15,79,116	16,84,428	19,98,032	20,13,459	24,49,131	24,01,159	22,90,128	20,78,162	20,78,340	21,14,226	25,49,854	Central Provinces and Berar.
1,62,410	1,37,596	1,70,242	1,90,730	2,24,031	1,93,087	2,45,419	2,35,909	2,74,756	2,24,330	2,13,129	2,76,055	2,95,170	Coorg.
..	..	13,012	1,01,123	1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	1,58,171	North-West Frontier Province.
10,270	10,646	6,865	9,736	13,884	17,297	15,002	18,335	29,864	27,615	23,990	33,846	26,361	Ajmer.
17,060	16,956	14,712	19,336	18,363	22,555	21,481	21,195	24,829	23,305	18,729	23,212	20,117	Baluchistan.
2,60,600	2,77,866	2,66,903	3,26,035	4,32,381	6,20,796	5,82,511	6,07,027	2,19,822	2,02,018	2,59,477	4,16,773	5,22,160	Andamans.
3,210	3,697	3,545	3,252	3,038	3,557	3,080	4,579	6,137	4,680	4,909	4,080	5,550	Imperial Forest College and Research Institute.
420	327	473	3,034	431	--	..	--	--	--	--	..	..	Forest Surveys (Imperial).
1,42,92,120	1,44,68,794	1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	1,98,06,819	2,05,57,869	Total
23,02,290	23,40,170	25,43,430	26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	38,90,919	41,78,381	38,80,411	41,68,921	Madras.
24,15,200	29,61,529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	43,30,569	Bombay.
1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	2,90,57,359	GRAND TOTAL.

DITURE.

96,550	83,578	79,539	85,017	89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	94,714	Imperial. *
5,45,210	5,70,806	6,57,131	6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	7,06,374	Bengal. †
9,42,380	9,63,439	10,08,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,94,013	12,22,436	12,09,308	12,37,938	13,63,673	United Provinces.
12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	12,63,664	11,44,403	11,76,696	8,51,627	6,67,752	7,40,542	7,65,146	Punjab.
24,47,440	26,54,717	26,46,457	28,90,263	33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	38,42,799	41,31,162	Burma.
..	..	..	..	..	..	..	..	..	..	..	..	3,00,916	Bihar and Orissa.
3,57,140	3,47,972	3,29,112	3,27,498	4,25,484	5,03,656	5,93,910	7,07,860	8,00,373	8,91,349	10,12,541	10,87,340	8,41,013	Assam. ‡
12,75,820	11,65,866	12,00,904	12,57,288	12,80,966	13,20,615	13,07,153	13,42,878	15,83,407	17,53,307	15,86,852	15,89,533	18,38,379	Central Provinces and Berar.
74,220	70,905	82,333	89,437	92,191	83,820	95,748	1,02,855	1,04,819	99,595	1,07,822	1,07,679	1,21,174	Coorg.
..	..	19,510	54,086	60,603	74,958	95,258	93,650	88,400	81,413	77,391	72,402	80,436	North-West Frontier Province.
15,350	16,782	15,927	16,377	16,680	15,641	17,131	16,715	18,188	19,016	19,272	19,018	22,343	Ajmer.
28,680	29,254	24,480	23,240	21,697	24,672	25,743	26,322	31,258	36,586	26,549	26,387	28,947	Baluchistan.
1,40,940	1,40,137	2,04,667	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	2,26,063	2,61,732	Andamans.
73,550	71,238	76,290	66,338	59,339	61,424	80,669	1,37,486	1,58,038	1,83,191	1,96,174	2,19,183	2,63,441	Imperial Forest College.
33,980	33,991	33,730	33,985	33,935	28,229	30,044	30,389	27,060	39,128	41,062	41,140	38,798	Forest Surveys (Imperial).
72,42,720	70,36,028	73,17,154	77,37,338	86,40,126	90,77,954	98,65,826	95,92,956	97,76,649	97,64,900	95,17,931	99,47,805	1,08,67,248	Total.
16,53,530	17,15,431	17,09,554	18,35,552	17,50,930	19,86,098	22,66,602	24,80,660	27,80,857	29,17,261	33,89,635	32,25,801	34,14,882	Madras.
21,28,430	24,08,581	17,19,680	16,76,441	17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	20,63,088	20,70,417	26,64,436	Bombay.
1,10,24,680	1,11,60,040	1,07,40,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,933	1,47,26,034	1,49,20,654	1,52,44,023	1,69,46,566	GRAND TOTAL.

SURPLUS.

—90,460	—81,115	—76,055	—81,358	—81,890	—79,290	—76,512	—95,472	—92,538	—95,994	—93,700	—83,944	—84,034	Imperial. *
5,93,700	6,62,533	6,35,106	6,18,233	3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,159	4,16,068	Bengal. †
6,72,360	6,02,024	7,06,769	10,11,326	11,99,008	10,05,735	10,28,246	11,96,013	12,15,732	9,52,970	10,91,586	11,40,501	16,52,487	United Provinces.
1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	4,37,165	3,64,881	4,77,446	5,44,931	Punjab.
53,64,610	53,99,727	32,27,481	38,48,790	49,16,131	55,12,832	63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	58,36,432	Burma.
..	..	..	..	..	..	..	..	..	..	..	..	1,06,297	Bihar and Orissa.
2,10,960	2,01,549	1,83,851	2,52,701	2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	3,05,307	Assam. ‡
21,670	99,748	3,78,212	4,27,140	7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	4,91,488	5,24,693	7,11,475	Central Provinces and Berar.
88,190	66,691	87,909	1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	1,68,376	1,73,996	Coorg.
..	..	—6,498	47,038	41,230	16,033	33,271	89,564	1,50,090	41,369	95,914	1,32,850	68,735	North-West Frontier Province.
—5,080	—6,136	—9,062	—6,641	—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	13,928	4,018	Ajmer.
—11,620	—12,298	—9,768	—3,904	—3,334	—2,117	—4,262	—5,127	—6,429	—13,281	—7,820	—3,175	—8,830	Baluchistan.
1,19,660	1,37,749	62,236	44,333	1,66,260	2,78,365	2,46,526	3,11,891	62,555	21,077	65,318	1,89,810	2,60,428	Andamans.
—70,340	—67,541	—72,745	—63,086	—56,301	—57,867	—77,589	—1,32,907	—1,51,901	—1,78,511	—191,265	—2,15,103	—2,57,891	Imperial Forest College.
—33,560	—33,664	—33,257	—30,951	—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	—38,798	Forest Surveys (Imperial).
70,49,400	74,32,766	55,83,402	67,91,227	81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,826	98,59,014	96,90,621	Total.
6,48,760	6,24,739	8,33,876	7,78,267	9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	7,54,039	Madras.
2,86,770	5,52,948	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47,807	16,66,133	Bombay.
79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	1,21,10,793	GRAND TOTAL.

charges on account of Indore and Bangalore. Excludes Home charges.

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DIAGRAMS
ILLUSTRATING
PRINCIPAL RESULTS
OF
FOREST ADMINISTRA
IN
BRITISH INDIA.

DIAGRAM I.

Reserved, Protected, and Unclassed Forests and Area under working plans.

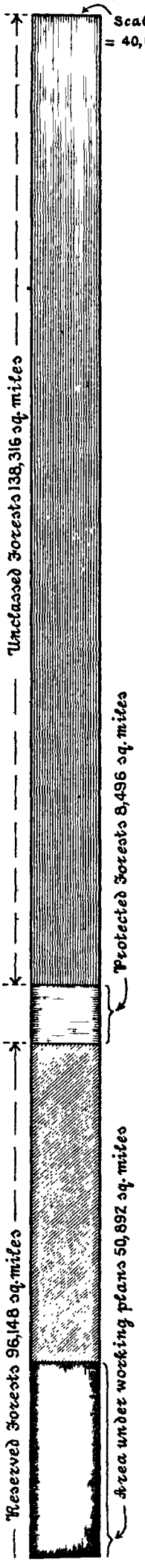

Scale – 1 sq: inch = 40,000 sq: miles.
Unclassed Forests 138,316 sq. miles
Reserved Forests 96,148 sq. miles
Area under working plans 50,892 sq. miles
Protected Forests 8,496 sq. miles

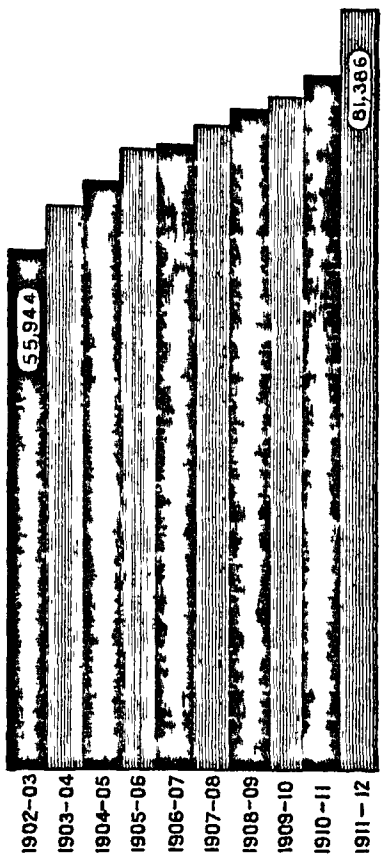
DIAGRAM II.

Area open to grazing

DIAGRAM III.

Cases of breaches of Forest Rules.

Vertical scale – 1 inch = 20,000 cases.



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Number of

Gover

Vertical scale-

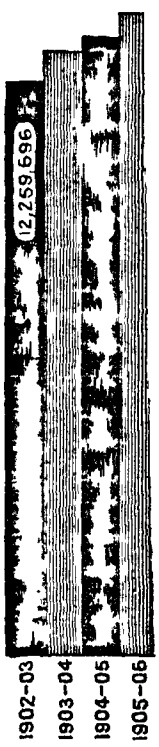
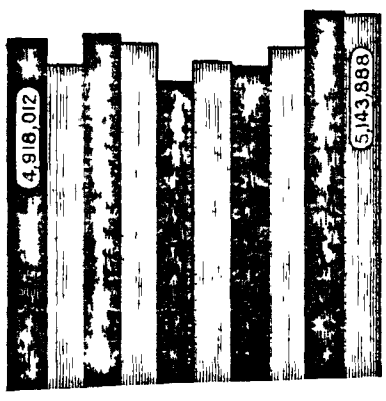


DIAGRAM V

Outturn of timber and fuel in tons of 50 c. ft.

Vertical scale – 1 inch = 2,000,000 tons.

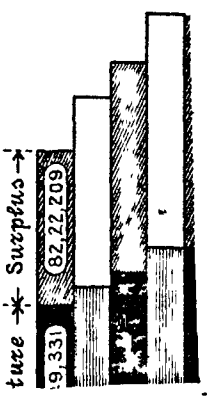


DIA

Forest Reve

(Finar

Vertical scale-



NOTICE.

These statistics were formerly included in the Inspector-General of Forests' Annual Review of Forest Administration in British India. From 1910-11 only the Statistics are being published annually and the progress of Forest Administration in India will be reviewed quinquennially, commencing with the period ending with the year 1913-14.

A few diagrams, illustrative of the principal results, are appended to the present issue of the statistics.

SIMLA :

The 1st October 1914.

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APPENDIX.

Statistics diagram indicating some results of Forest Administration in British India.

STATEMENT I.

Area of all forest lands.

Province. Name. (1)	Area in square miles. (2)	Forest area in square miles. Reserved. (3)	Protected. (4)	Unclassed State. (5)	Total. (6)	Percentage of forests to whole area of Province. (7)	Remarks. (8)
Bengal	78,875	(a) 4,871	(b) 1,711	4,030	10,612	13·5	(a) Excludes 17 square miles of reserved forest not under the management of the Forest Department.
United Provinces ..	106,773	(c) 4,117	(d) 30	29	4,176	3·9	(b) Excludes 54 square miles not under the control of the Forest Department.
Punjab	96,650	(e) 2,205	(f) 5,200	1,311	8,716	9	(c) Includes 156 square miles of leased forests.
Burma	169,867	27,023	..	106,592	1,33,615	78·7	(d) Excludes 9,066 square miles of District forests not under the control of the Forest Department.
Bihar and Orissa ..	82,980	1,723	(g) 1,056	..	2,779	3·3	(e) Includes 367 square miles of leased forests but excludes 109 square miles of reserved forests not under the control of the Forest Department.
Assam	48,915	4,381	..	18,290	22,671	46·3	
Central Provinces (including Berar).	99,876	20,572	..	..	20,572	20·6	(f) Excludes 20 square miles not under the control of the Forest Department.
Coorg	1,582	520	..	..	520	32·9	(g) Excludes 925 square miles of other protected forests not under the management of the Forest Department.
North-West Frontier Province.	13,184	(h) 236	(i)	..	236	1·8	(h) Excludes 14 square miles of Military and Civil Reserved forests.
Ajmer	2,767	142	(n)	..	142	5·1	(i) 121 square miles of Civil Protected forests are not shown.
Baluchistan (portions under British Administration).	(o) 54,228	313	..	472	785	1·4	(n) There are only 115 acres of protected forests in Ajmer.
Andamans	3,143	156	..	2,015	2,171	69·1	(k) Reserved lands.
Madras	1,42,294	18,641	..	(k) 825	19,466	13·7	(l) Includes 331 square miles of leased forests and excludes 2,054 square miles of forests in charge of the Revenue Department.
Bombay (including Sind)	1,23,301	(l) 11,697	(m) 495	..	12,462	10·1	(m) Includes 325 square miles of leased forests and excludes 548 square miles of protected forests in charge of the Revenue Department.
Total 1912-13 ..	1,024,435	96,867	8,492	1,33,564	2,38,923	23·3	
„ 1911-12 ..	1,016,323	96,148	8,496	1,38,316	2,42,960	23·9	(o) Revised Survey figures.
„ 1910-11 ..	1,016,282	96,387	8,507	1,38,584	2,43,478	23·9	
„ 1909-10 ..	987,990	96,474	8,814	1,40,263	2,45,551	24·9	
„ 1908-09 ..	986,144	94,561	8,835	1,38,378	2,41,774	24·5	

STATE

Progress in for

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.					
				Area.			Expenditure incurred.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved	Protected.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
Bengal	4,888	..	4,888	..	..	..	..	..	..
United Provinces..	3,961	30	3,991	..	..	..	..	..	..
Punjab	1,954	5,221	7,175	1	..	1	..	..	..
Burma	26,275	..	26,275	843	..	843	6,964	..	6,964
Bihar and Orissa	1,723	..	1,723	..	..	..	..	..	..
Assam	4,321	..	4,321	71	..	71	..	..	..
Central Provinces	21,038	..	21,038	15	..	15	..	..	..
Coorg	520	..	520	..	..	..	..	..	..
North-West Frontier Province.	250	121	371	..	..	..	..	..	..
Ajmer	..	..	..	..	..	..	..	..	..
Baluchistan ..	313	..	313	..	..	..	..	..	..
Andamans ..	156	..	156	..	..	..	..	..	..
Madras	18,594	..	18,594	52	..	52	129	..	129
Bombay ..	13,668	716	14,384	4	..	4	..	..	..
Total 1912-13	97,661	6,088	103,749	986	..	986	7,093	..	7,093
„ 1911-12	97,407	6,090	103,497	310	..	310	19,512	..	19,512
„ 1910-11	90,281	6,281	96,862	843	2	845	11,676	..	11,676
„ 1909-10	90,011	6,162	96,173	2,096	..	2,096	13,601	..	13,601
„ 1908-09	(a) 90,913	6,289	97,204	1,217	13	1,230	8,583	..	8,583

(a) Corrected area.

MENT II.

est settlements.

AREA UNDERGOING SETTLEMENT.								
AT COMMENCEMENT OF THE YEAR.			TAKEN IN HAND DURING THE YEAR.			EXPENDITURE INCURRED DURING THE YEAR.		
Reserved. (11)	Protected. (12)	Total. (13)	Reserved. (14)	Protected. (15)	Total. (16)	Reserved. (17)	Protected. (18)	Total. (19)
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
4	..	4	..	..	..	..	..	..
3	26	29	7	..	7	..	..	..
62	205	267	..	..	..	24	..	24
382	..	382	565	..	565	4,511	..	4,511
132	..	132	19	..	19	50	..	50
46	..	46	254	..	254	40	..	40
16	..	16	19	..	19	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
16	..	16	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
542	..	542	110	..	110	3,581	..	3,581
17	..	17	51	..	51	1,518	..	1,518
1,220	231	1,451	1,025	..	1,025	9,724	..	9,724
1,739	205	1,944	634	248	882	19,149	43,485	62,634
3,436	205	3,641	5,692	..	5,692	17,992	..	17,992
3,322	205	3,527	867	..	867	1,12,971	..	1,12,971
5,323	205	5,528	824	..	824	34,326	..	34,326

STATEMENT III.

Demarcation and maintenance of boundaries.

Province. (1)	Length of boundaries artificially demarcated during the year. (2)	Length of previously existing boundaries repaired. (3)	Length of previously existing boundaries not repaired. (4)	Total length of artificially marked boundaries at the close of the year. (5)	Length of boundaries not demarcated at the close of the year (6)	Length of natural boundaries not requiring artificial marks. (7)	Total length of boundaries at the close of the year. (8)	Expenditure on demarcation during the year. On new work. (9)	Expenditure on demarcation during the year. On repairs. (10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	114	849	513	1,476	416	1,121	3,013	4,455	9,480
United Provinces..	4	1,956	2,529	4,489	3	1,523	6,015	7,330	5,811
Punjab	197	1,901	7,892	9,990	20	1,082	11,092	40	3,049
Burma	1,041	2,999	15,233	19,273	721	3,604	23,598	13,825	16,376
Bihar and Orissa	36	3,375	257	3,668	..	260	3,928	302	838
Assam	46	1,429	32	1,507	18	1,724	3,249	2,207	6,581
Central Provinces	43	12,168	20,322	32,533	170	3,362	36,065	933	22,652
Coorg	..	..	307	307	173	56	536	..	65
North-West Frontier Province.	..	65	712	777	..	139	916	..	472
Ajmer	..	22	221	243	..	158	401	..	489
Baluchistan ..	..	79	381	460	..	77	537	..	4
Andamans ..	..	..	79	79	..	118	197	..	..
Madras	275	19,314	14,623	34,912	963	1,777	36,952	18,377	14,995
Bombay ..	444	9,724	26,456	36,624	1,817	3,024	41,464	3,681	4,875
Total, 1912-13 ..	2,200	53,881	89,557	1,46,338	4,301	18,025	1,67,963	51,150	85,687
„ 1911-12 ..	1,923	52,597	90,954	1,45,473	4,318	18,284	1,64,593	45,250	92,646
„ 1910-11 ..	1,942	57,929	86,320	1,46,191	4,393	18,214	1,68,798	37,636	85,491
„ 1909-10 ..	2,527	64,885	78,490	1,45,967	6,033	18,063	1,70,063	35,260	92,129
„ 1908-09 ..	2,727	61,235	78,594	1,42,576	6,117	15,576	1,66,269	46,362	97,774

STATEMENT IV.

Forest survey operations.

Province.	Forest surveyed.	Nature of survey operations. 1″ Detail Survey. Area.	1″ Detail Survey. Cost rate.	2″ Detail Survey. Area.	2″ Detail Survey. Cost rate.	4″ Detail Survey. Area.	4″ Detail Survey. Cost rate.	Total area of Detail Survey. 1912-1913.	Total area of Detail Survey. Total up to date.	Expenditure of the year including mapping and publishing charges debitable to Forests.	Remarks.
(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(9)	(10)	(11)	(12)
		Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Sq.m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	3,265	..	
United Provinces ..	Haldwani ..	..	..	..	..	..	..	..	4,139	97	
	Naini Tal ..	..	..	..	..	..	..	..		171	
	Ramnagar ..	..	..	..	..	..	..	..		450	
Punjab	..	..	..	..	..	..	..	..	4,365	..	
Burma	Myitkyina ..	(a) 27	53·9	(a) 117	53·9	..	..	144	15,011	..	
	S. Tenasserim	..	..	(b) 215	69·7	..	..	215			
Bihar and Orissa ..	Singhbhum and Chaibassa	(c) 32	25·5	(c) 30	25·5	..	..	62	1,751	..	
Assam	Kamrup ..	..	..	10		..	..	10	2,456	..	
	Darrang ..	..	..	(d) 27		..	..	27			
	Nowgong ..	(e)	..	(f)	40·9	..	..	..			
	Sibsagar ..	..	..	(g)		..	..	..			
	Lakhimpur	..	..	(h) 6		..	..	6			
Central Provinces ..	Berar ..	..	..	(j) 376	32·9	..	..	376	19,286	2,154(i)	
Coorg	..	..	..	..	..	..	..	..	478	..	
North-West Frontier Province.	..	..	..	..	..	..	..	..	445	..	
Ajmer	..	..	..	..	..	..	..	..	144	..	
Baluchistan ..	..	..	..	..	..	..	..	..	227	..	
Andamans ..	..	..	..	..	..	..	..	..	..	..	
Madras	Kollegal ..	..	..	12	17·5	..	..	12	15,151	..	
Bombay	..	..	..	..	..	..	..	..	12,973	..	
Total 1912-13 ..	..	59	..	793	..	..	..	852	79,691	(k) 2,872	
„ 1911-12 ..	..	33	..	873	..	..	..	906	78,839	(l) 1,827	
„ 1910-11 ..	..	395	..	446	..	..	..	841	77,033	(m) 1,926	
„ 1909-10 ..	..	120	..	1,370	..	..	..	1,490	77,092	(n) 5,708	
„ 1908-09 ..	..	29	..	1,881	—	70	..	1,980	75,602	(o) 9,935	

(a) 207 miles of boundaries have been traversed on a scale of 4″ = 1 mile.

(b) 60 miles of boundaries have been traversed on a scale of 4″ = 1 mile.

(c) 253 miles of boundaries have been traversed on scale of 4″ = 1 mile.

(d) 7 miles of boundaries have been traversed on scale of 4″ = 1 mile.

(e) 44 sq. miles previously surveyed on the 4 inch scale have been revised.

(f) 73 miles of boundaries have been traversed on a scale of 4″ = 1 mile and the detail survey will be carried out next season.

(g) 88 miles of boundaries have been traversed on a scale of 4″ = 1 mile and the detail survey will be carried out next season.

(h) Upper Dehing reserve (Western Block) specially surveyed for the Forest Department. Fifty miles of boundary of this reserve have also been traversed on a scale of 4″ = 1 mile.

(i) Cost of above debitable to the Forest Department.

(j) 985 miles of boundaries have been traversed by planetable on a scale of 4″ = 1 mile.

(k) Mapping, publishing and cost of special survey only, and excludes Forest Map Office Head-quarters charges, Rs. 36,220.

(l) Excludes Forest Map Office Head-quarters charges Rs. 38,592.

(m) Excludes Forest Map Office Head-quarters charges Rs. 39,171.

(n) Excludes Forest Map Office Head-quarters charges Rs. 41,165.

(o) Excludes Forest Map Office Head-quarters charges Rs. 38,943.

STATEMENT V.

Progress made in Working-plans.

PROVINCE.	Areas for which Working-plans have been sanctioned by Local Governments.		Areas for which Working-plans are being compiled.		Areas for which Working-plans have still to be taken in hand.	Areas for which Working-plans are not at present required.	Total forest area as in Statement I.	Percentage of area under Working-plans to the total forest area.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.		
Bengal ..	(a) 4,927	38	..	..	1,610	(b) 4,037	10,612	46	(a) Excludes 17 sq.miles of other reserves.
United Provinces..	4,077	..	..	..	(c) 76	23	4,176	98	(b) Excludes 54 sq. miles of other protected forests.
Punjab ..	(d) 3,966	..	762	5	250	(d) 3,733	8,716	46	(c) Excludes 7 sq. miles of unclassed State forests recently afforested.
Burma ..	(d) 7,657	274	(d) 2,533	(d) 574	7,751	114,826	133 615	6	(d) Revised area.
Bihar and Orissa	1,460	..	..	35	6	(e) 1,278	2,779	53	(e) Excludes 925 sq. miles of other protected forests not under the management of the Forest Department.
Assam ..	(d) 1,138	..	..	134	1,839	19,560	22,671	5	
Central Provinces	12,607	..	(d) & (f) 2,964	1,482	22	(d) 3,497	20,572	40	(f) Excludes 4,416 sq. miles for which revised Working Plans are under preparation but which are shown in column 2.
Coorg	130	..	..	(g) 77	313	..	520	25	
North-West-Frontier Province.	236	..	..	..	..	..	236	100	(g) Excludes 130 sq. miles for which a Working Plan is under preparation.
Ajmer	140	..	..	..	2	..	142	99	
Baluchistan ..	..	..	..	..	313	472	785	..	
Andamans ..	317	..	..	580	314	960	2,171	15	
Madras	(d) 7,617	390	(d) 2,282	86	6,092	2,999	19,466	39	
Bombay ..	6,582	166	476	442	(d) 1,514	(d) 3,282	12,462	53	
Total 1912-13	50,854	868	9,017	3,415	20,102	1,54,667	238,923	19	
„ 1911-12	46,518	4,374	8,944	2,332	159,188	21,604	242,960	19	
„ 1910-11	49,144	1,039	5,946	4,641	157,067	25,641	243,478	20	
„ 1909-10	48,104	1,317	5,951	2,292	161,679	26,208	245,551	20	
„ 1908-09	44,848	3,453	5,315	2,378	185,780	Included in Column 6.	241,774	20	

NOTE.—W. P's under revision should be included in Column 2.

STATEMENT VI.

Expenditure on communications and buildings.

Province. (1)	New Works. Buildings. (2)	New Works. Roads. (3)	Repairs. Buildings. (4)	Repairs. Roads. (5)	Other Works. (6)	Total. (7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. (a)
Bengal	48,704	18,111	17,105	17,405	7,223	1,08,548
United Provinces.. ..	55,796	14,902	37,701	53,366	13,740	1,75,505
Punjab	15,707(b)	26,109(b)	9,781	6,226	3,643	61,466
Burma	70,253	50,949	55,248	27,262	19,660	223,372
Bihar and Orissa ..	35,073	34,723	6,116	10,710	4,538	91,160
Assam	46,663	46,754	16,721	15,361	9,202	1,34,701
Central Provinces ..	58,493	65,417	27,284	31,881	36,202	2,19,277
Coorg	22,225	1,400	2,577	2,045	2,280	30,527
North-West Frontier Province.	4,630	2,871	1,814	1,528	200	11,043
Ajmer	794	261	196	158	184	1,593
Baluchistan	110	..	383	..	17	510
Andamans	347	..	367	1,066	45	1,825
Madras	1,52,997	61,779	53,980	70,766	21,785	3,61,307
Bombay	66,840	19,815	14,140	51,482	15,512	167,789
Total 1912-13 ..	5,78,632	3,43,091	2,43,413	2,89,256	1,34,231	15,88,623
„ 1911-12 ..	4,69,982	3,04,117	2,26,108	2,59,781	1,34,501	13,94,489
„ 1910-11 ..	4,70,257	3,48,784	2,12,482	2,42,365	1,27,048	14,00,936
„ 1909-10 ..	5,37,292	2,45,800	1,92,224	1,93,356	1,31,296	12,99,968
„ 1908-09 ..	4,45,273	3,23,560	2,08,284	2,16,620	1,75,987	13,69,724

(*a*) This excludes :—
(1) Pay of rest-house keepers, Rs. 1,074.
(2) Cost of land acquired, Rs. 1,520.

(*b*) Includes charges not separately shown under " Repairs ".

Note.—Under *Bombay* there is a difference of Rs. 586 between the figures in Provincial Form No. 12 (Statement VI above) and those given under head VII (*a*), (*b*), and (*c*) in Provincial Form No. 24 (Statement XVII) due to the exclusion of the figures of the Famine Fodder operations from Form No. 12.

STATEMENT VII.

Breaches of forest rules.

PROVINCE.		Cases pending from 1911-1912.	NEW CASES OF THE YEAR. Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	TOTAL CASES.	DISPOSED OF DURING THE YEAR. CONVICTIONS. Cases.	Persons.	ACQUITTALS. Cases.	Persons.	TOTAL. Cases.	Persons.	Cases pending at close of year.
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Bengal	A.	13	3	115	32	20	170	183	131	310	29	150	160	460	20
	B.	82	3	670	539	75	1,287	1,369	1,174	2,252	..	..	1,174	2,252	195
	C.	..	20	82	1	12	115	115	..	..	..	..	..	..	..
	Total ..	95	26	867	572	107	1,572	1,667	1,305	2,562	29	150	1,334	2,712	215
United Provinces	A.	16	10	37	34	16	97	113	81	176	18	61	99	237	14
	B.	77	8	957	732	44	1,741	1,818	1,713	4,388	41	31	1,754	4,369	64
	C.	..	37	112	25	6	180	180	..	..	..	..	..	..	..
	Total ..	93	55	1,106	791	66	2,018	2,111	1,794	4,514	59	92	1,853	4,606	78
Punjab	A.	203	12	412	225	75	724	927	605	1,220	106	433	711	1,653	198
	B.	6	17	3,890	5,015	124	9,046	9,052	9,052	13,483	..	..	9,052	13,483	..
	C.	..	109	67	10	..	186	186	..	..	..	..	..	..	..
	Total ..	209	138	4,369	5,250	199	9,956	10,165	9,657	14,703	106	433	9,763	15,136	198
Burma	A.	311	28	725	40	172	965	1,276	827	1,527	154	404	981	1,931	273
	B.	361	28	2,266	128	1,306	3,728	4,089	3,610	5,011	8	19	3,618	5,030	395
	C.	..	33	29	..	10	72	72	..	..	..	..	..	..	..
	Total ..	672	89	3,020	168	1,488	4,765	5,437	4,437	6,538	162	423	4,599	6,961	668
Bihar and Orissa ..	A.	28	16	74	10	46	146	174	119	345	29	117	148	462	16
	B.	43	4	691	140	48	883	926	881	2,758	3	5	884	2,763	41
	C.	..	136	9	..	..	145	145	..	..	..	..	..	..	..
	Total ..	71	156	774	150	94	1,174	1,245	1,000	3,103	32	122	1,032	3,225	57
Assam	A.	32	..	85	2	50	137	169	104	320	35	286	139	606	30
	B.	16	2	252	36	150	440	456	438	1,090	..	..	438	1,090	18
	C.	..	3	4	..	2	9	9	..	..	..	..	..	..	1
	Total ..	48	5	341	38	202	586	634	542	1,410	35	286	577	1,696	49
Central Provinces ..	A.	30	15	97	112	45	269	229	202	477	55	326	257	803	42
	B.	759	93	4,449	4,939	551	10,023	10,782	9,885	27,802	2	3	9,887	27,805	895
	C.	..	152	190	29	..	371	371	..	..	..	..	..	..	..
	Total ..	789	260	4,736	5,080	596	10,663	11,382	10,087	28,279	57	329	10,144	28,608	937
Coorg	A.	2	1	..	16	2	19	21	14	18	3	4	17	22	4
	B.	..	..	4	2	..	6	6	6	..	..	..	6	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	2	1	4	18	2	25	27	20	18	3	4	23	22	4
North-West Frontier Province.	A.	74	9	182	60	3	254	328	157	370	22	156	179	526	138
	B.	..	..	702	701	..	1,403	1,403	1,403	2,621	..	..	1,403	2,621	..
	C.	..	35	13	9	10	67	67	..	..	..	..	..	..	..
	Total ..	74	44	897	770	13	1,724	1,798	1,560	2,991	22	156	1,582	3,147	138

STATEMENT VII—*contd.*

Breaches of forest rules—contd.

PROVINCE.		Cases pending from 1911-1912.	NEW CASES OF THE YEAR.					DISPOSED OF DURING THE YEAR.							Cases pending at close of year.
									CONVICTIONS.		ACQUITTALS.		TOTALS.		
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer	A.	..	..	7	3	1	11	11	7	25	4	6	11	31	..
	B.	..	1	235	259	28	523	523	516	931	7	..	523	931	3
	C.	..	4	..	..	..	4	4	..	..	..	..	..	..	..
Total ..		..	5	242	262	29	538	538	523	956	11	6	534	962	3
Baluchistan	A.	2	1	29	16	1	47	49	41	95	5	16	46	111	3
	B.	..	..	4	13	..	17	17	17	40	..	..	17	40	..
	C.	..	8	..	..	..	8	8	..	..	..	..	..	..	..
Total ..		2	9	33	29	1	72	74	58	135	5	16	63	151	3
Andamans	A.	..	..	6	..	..	..	6	3	5	3	3	6	8	..
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	..	6	..	..	..	6	3	5	3	3	6	8	..
Madras	A.	1,751	65	3,526	1,583	321	5,495	7,246	5,352	14,571	616	2,490	5,968	17,061	1,065
	B.	4,182	63	15,104	6,829	734	22,730	26,912	20,910	47,107	1	4	20,911	47,107	4,215
	C.	..	949	524	179	15	1,667	..	..	..	..	..	..	..	..
Total ..		5,933	1,077	19,154	8,591	1,070	29,892	34,158	26,262	61,674	617	2,494	26,879	64,168	5,280
Bombay	A.	307	94	585	214	102	995	1,302	816	2,114	138	402	954	2,516	347
	B.	592	137	8,050	6,091	1,263	15,521	16,113	15,007	32,923	..	..	15,007	32,923	1,105
	C.	66	1,012	2,337	28	62	3,439	3,505	1,066	..	..	..	1,066	..	32
Total ..		965	1,243	10,952	6,333	1,427	19,955	20,920	16,889	35,037	138	402	17,027	35,439	1,484
GRAND TOTAL ..	A.	2,769	254	5,880	2,347	854	9,329	12,034	8,459	21,573	1,217	4,854	9,676	26,427	2,150
	B.	6,118	356	37,254	25,424	4,332	67,348	73,466	64,612	140,352	62	62	64,674	140,414	6,931
	C.	66	2,198	3,367	281	117	6,263	4,662	1,066	..	..	..	1,066	..	33
Total 1912-13 ..		8,953	3,108	46,501	28,052	5,294	82,940	90,162	74,137	1,61,925	1,279	4,916	75,416	166,841	9,114
„ 1911-12 ..		7,773	4,182	45,279	27,176	4,753	81,386	89,163	69,220	1,53,676	1,831	6,126	71,051	154,400	8,859
„ 1910-11 ..		7,632	4,213	38,646	27,306	4,006	74,164	81,796	63,578	1,40,517	1,290	4,384	64,870	1,45,202	7,686 (*a*)
„ 1909-10 ..		7,022	4,526	36,529	27,490	3,597	72,142	79,164	61,597	1,33,396	1,225	4,012	62,822	138,408	7,547 (*b*)
„ 1908-09 ..		6,982	3,615	37,238	26,173	4,274	71,300	78,282	60,511	1,36,237	1,443	5,180	61,954	141,417	7,622

N. B.—A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.
(*a*) Excludes 7,285 undetected cases and 1,955 cases struck off.
(*b*) Excludes 1,789 cases struck off

STATEMENT VIII.

Area protected from fire.

Province.	Area in square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected.		Average of past five years to 1911-12.	1912-13.	
Bengal	720	718	14·8	2·3	·3	
United Provinces	3,223	3,139	78·3	3·9	2·6	(*a*) Excludes protected forests under fire protection.
Punjab	1,032	1,021	46·8	2·3	1·0	
Burma	6,313	6,004	23·4	3·8	4·9	
Bihar and Orissa	(*a*) 1,634	(*a*) 1,581	94·8	(*b*)	3·2	(*b*) Refers to the old Province of Eastern Bengal and Assam.
Assam	(*c*) 1,393	(*c*) 1,368	31·8	4·4	1·8	(*c*) Includes partially protected areas.
Central Provinces	11,558	11,375	56·2	4·3	1·6	
Coorg	171	166	32·9	3·4	2·9	
North-West Frontier Province	85	84	36·02	11·3	1·2	
Ajmer	(*a*) 137	(*a*) 137	97·2	0·4	0·7	
Madras	(*c*) 15,362	(*c*) 14,360	82·4	7·2	6·5	
Bombay	10,031	9,880	83·8	6·7	1·5	
Total 1912-13	51,659	49,833	53·3	5·2	3·5	
„ 1911-12	51,182	48,333	53·2	5·6	5·5	
„ 1910-11	50,712	48,718	52·6	5·8	3·9	
„ 1909-10	48,510	45,768	50·3	5·6	5·7	
„ 1908-09	46,432	44,497	49·0	6·3	4·5	

STATEMENT IX.

Causes of forest fires.

PROVINCE.	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the Fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		TOTAL.	
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Bengal	..	..	4	·1	5	·1	1	..	9	2·3	19	2·5
United Provinces..	18	1	15	8	23	3	11	24·7	19	48·5	86	85·2
Punjab	20	·7	13	2	50	1·7	42	7·6	29	·6	154	12·6
Burma	36	5	67	47	53	29·6	61	100·7	107	126·5	324	308·8
Bihar and Orissa	10	·2	6	·2	31	1·5	49	44	30	13·2	126	59·1
Assam	1	..	7	24·6	1	..	1	·2	2	..	12	24·8
Central Provinces	34	27·3	28	28·5	76	43·9	4	7·6	79	75·2	221	182·5
Coorg	4	..	10	3·8	1	..	3	..	3	·8	21	4·6
North-West Frontier Province.	..	..	1	..	6	..	10	·8	4	..	21	8
Ajmer	..	..	..	..	5	..	..	..	..	..	5	..
Baluchistan ..	..	..	..	..	2	..	..	..	8	..	10	..
Andamans ..	..	..	..	..	..	..	..	..	..	..	..	..
Madras	45	36·9	166	82	318	92·4	260	157	637	669·3	1·426	1,037·6
Bombay ..	59	8·7	92	16·5	299	35·3	164	49·7	604	62·9	1,218	173·1
Total 1912-13 ..	227	79·8	409	212·7	870	207·5	606	392·3	1,531	999·4	3,643	1,891·6
„ 1911-12 ..	281	131·5	451	487·5	1,782	833·0	871	536·0	1,524	856·4	4,909	2,844·4
„ 1910-11 ..	260	90·8	480	344·5	1,746	687·4	765	400·7	1,652	681·0	4,903	2,204·4
„ 1909-10 ..	321	152·0	515	564·9	2,102	529·5	652	597·4	1,722	1,320·8	5,312	3,254·9
„ 1908-09 ..	302	77·0	394	496·7	(a) 2,651	1,015·4	441	313·8	(a) Included in columns 6 & 7	..	3,788	1,902·9

(a) Includes fires due to unknown causes.

STATEMENT X.

Area closed and open to grazing.

AREA IN SQUARE MILES.

PROVINCE.	CLOSED TO ALL ANIMALS. Whole year.	CLOSED TO ALL ANIMALS. Part of year.	CLOSED TO BROWSERS, CAMELS, GOATS OR SHEEP. Whole year.	CLOSED TO BROWSERS, CAMELS, GOATS OR SHEEP. Part of year.	OPEN TO ALL ANIMALS. Whole year.	Total area.	REMARKS.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	5,688	7	155	63	4,770	10,683 (a)	(a) Includes 17 square miles of other reserves and 54 square miles of other protected forests.
United Provinces.. ..	2,178	129	670	..	1,206	4,183 (b)	(b) Includes 7 square miles of unclassed state forests recently afforested.
Punjab	332	413	680	73	7,218	8,716	
Burma	20,251	5,312	300	6	107,746	1,33,615	
Bihar and Orissa ..	1,419	..	650	..	1,635	3,704 (c)	(c) Includes 925 square miles of other protected forests not under the management of the Forest Department.
Assam	3,678	..	504	..	18,489	22,671	
Central Provinces ..	3,137	473	9,744	9	7,209	20,572	
Coorg	158	362	..	.. (d)	..	520	(d) The whole area is closed to browsers.
North-West Frontier Province.	83	1	105	..	47	236	
Ajmer	66	73	(d)	..	3	142	
Baluchistan	186	36	13	..	550	785	
Andamans	156	..	..	..	2,015	2,171	
Madras	3,163	280	489	..	15,534	19,466 (e)	(e) Of the total area 14,752 square miles were closed to goats only.
Bombay	2,197	211	9,403	331	2,923	15,065 (f)	(f) Includes 2,603 square miles not under the management of the Forest Department.
Total 1912-13 ..	42,692	7,297	22,713	482	169,345	242,529	
„ 1911-12 ..	41,568	7,660	21,414	561	175,347	246,550	
„ 1910-11 ..	42,692	6,753	21,123	179	126,348	247,095	
„ 1909-10 ..	43,205	6,693	20,015	195	178,517	248,625	
„ 1908-09 ..	Figures not available.						

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PROVINCE.	GRAZED ON PAYMENT NUMBER OF ANIMALS.									
	AT FULL RATES.			AT PRIVILEGED RATES.						
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	7,536	2,036	453	..	43	145	1,11,372	27	..	24
United Provinces ..	70,096	1,81,056	49,683	1,071	8,414	32,562	1,38,513	48,322	..	716
Punjab	30,851	1,22,100	301,495	10,095	1,560	64	11,151	228,058	..	19
Burma	5,570	17,994	1,580	..	41	35	35	..	..	..
Bihar and Orissa ..	8,931	31,695	5,040	..	84	9,065	1,48,315	12,500	..	500
Assam	56,490	16,283	539	..	697	650	..	..	..	..
Central Provinces ..	450,531	1,702,913	669,199	98	9,096	27,614	1,142,942	428	..	87
Coorg	425	3,864	..	..	..	..	..	..	..	..
North-West Frontier Province.	1,386	1,256	..	..	91	..	..	..	..	..
Ajmer	330	3,151	..	..	3	5,716	26,698	..	..	..
Baluchistan	391	7,182	1,600	..	15	..	43	3,253	..	..
Madras	42,489	654,955	445,996	..	407	115,887	1,020,369	1,455.996	..	3
Bombay	21,028	(a) 130,997	39,620	921	2,547	155,331	(a) 1,245,330	172,808	..	2,015
Total 1912-13 ..	6,96,074	2,875,482	1,515,205	12,185	22,998	3,47,069	3,844,768	19,21,392	..	3,364
„ 1911-12 ..	7,45,400	3,219,481	2,344,142	14,887	25,429	3,09,607	3,134,478	5,92,331	4	14,956
„ 1910-11 ..	7,15,773	2,987,791	2,466,844	17,796	23,411	2,49,155	2,797,571	5,79,293	6	4,511
„ 1909-10 ..	7,29,893	3,603,674	2,760,872	13,374	21,702	1,48,827	1,807,268	5,76,177	59	3,518
„ 1908-09 ..	8,60,729	4,547,396	3,342,919	15,381	24,985	1,62,773	1,891,704	5,75,115	50	5,965

(a) Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
BY RIGHT UNDER SETTLEMENT.					DURING PLEASURE OF GOVERNMENT OR OTHERWISE THAN UNDER SETTLEMENT.				
Buffaloes.	Cows and bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
..	..	..	..	..	1	325	8	..	1
23,436	1,37,364	40,588	..	1,527	3,430	16,348	456	..	93
137,650	645,507	1,315,091	307	180,537	125	6,145	105	2,858	59
39,921	230,646	..	..	8	1,305	95	..	..	2,196
30,866	82,734	21,000	..	..	50	80	..	..	..
..	60	..	..	..	66,374	396,634	81,931	..	625
..	365	..	..	..	11,161	231,815	499	..	40
..	416	..	..	..		..	..	..	..
5,222	10,449	..	..	..	5,966	21,117	..	..	200
..	..	..	..	..	..	1,437	..	..	..
..	3,310	53,226	1	1,193	..	..	..	..	..
24,516	95,182	34,936	..	..	159	2,356	4,509	..	762
3,133	10,596	61	2	79	74,113	375,014 (a)	2,143	696	5,099
2,64,744	12,16,629	1,464,902	310	183,344	152,684	1,051,168	89,651	3,554	9,075
2,72,550	1,31,860	1,439,407	308	183,481	219,129	1,237,379	85,157	2,289	7,325
2,46,675	1,106,321	1,404,539	310	183,176	151,658	957,507	84,121	10,948	5,041
2,45,007	1,095,949	1,054,986	310	182,777	162,256	977,392	84,358	7,881	5,265
257,681	1,236,268	791,327	401	16,985	128,149	806,629	77,254	4,701	5,282

STATEMENT XII.

Area of plantations and the cost of the year's work.

PROVINCE. (1)	AREA IN ACRES AT CLOSE OF THE YEAR. Regular Plantations. (2)	Taungyas. (3)	Total. (4)	Cost of operations during the year. (5)
Bengal	1,192	125	1,317	614
United Provinces	5,088	..	5,088	10,204
Punjab	456	..	456	17,943
Burma	(a) 3,214	(b) 75,006	78,220	32,103
Bihar and Orissa	909	..	909	1,378
Assam	3,266	..	3,266	5,446
Central Provinces	(c) 820	(d) 5,901	6,721	995
Coorg	2,062	2,123	4,185	3,843
North-West Frontier Province	..	..	..	..
Ajmer	(e) 66	..	66	..
Baluchistan	46	..	46	6
Andamans	962	..	962	3,206
Madras	(f) 29,423	2,481	31,904	1,23,277
Bombay	(g) 7,639	..	7,639	32,739
Total 1912-13	55,143	85,636	1,40,779	2,31,754
„ 1911-12	60,634	87,983	1,48,617	2,25,850
„ 1910-11	59,092	87,089	1,46,181	2,64,725
„ 1909-10	62,078	84,721	1,46,799	2,76,920
„ 1908-09	58,780	84,123	1,42,903	2,35,803

(a) 381 acres excluded during the year.
(b) 2,636 acres excluded during the year.
(c) 144 acres excluded during the year.
(d) 255 acres excluded during the year.
(e) 27 acres excluded during the year.
(f) 1,805 acres excluded during the year.
(g) 1,381 acres excluded during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile.							
									Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal	22,132,417	2,65,434	4,03,108	12,358	13,45,014	27,725	23,880,539	3,05,526	4,544	54	236	7	334	7	2,250	29
United Provinces ..	14,865,435	7,64,192	4,46,458	4,730	10,689	1,316	15,322,582	7,70,238	3,610	186	14,882	158	309	45	3,669	184
Punjab	11,117,449	10,98,377	11,100,579	11,85,547	17,07,685	66,934	23,925,713	23,50,858	5,042	498	2,135	228	1,303	51	2,745	270
Burma	14,876,194	4,12,436	..	..	50,965,048	4,25,136	65,841,242	8,37,572	550	15	..	..	478	4	493	6
Bihar and Orissa ..	29,20,594	91,631	14,459,624	1,37,689	1,694	98	17,381,912	2,29,418	1,695	53	13,693	130	..	..	6,252	83
Assam	18,84,424	78,952	..	..	12,360,557	6,69,855	14,241,981	7,45,807	429	17	..	..	676	37	628	33
Central Provinces ..	36,419,640	20,98,444	..	..	..	..	36,419,640	2,098,444	1,770	102	..	..	..	..	1,770	102
Coorg	334,792	24,743	1,65,720	304	..	..	5,00,512	25,047	644	48	..	..	..	..	644	48
North-West Frontier Province.	(a). 35,59,236	34,144		..	..	..	35,59,236	34,144	15,082	145	..	..	..	..	15,082	145
Ajmer	1,013,965	26,430	..	58	..	..	1,013,965	26,488	7,141	186	..	..	..	..	7,141	186
Baluchistan	43,718	43,549	..	..	1,96,561	54	2,40,279	43,603	140	139	..	..	416	..	306	56
Andamans	719,798	2,160	..	..	1,349,881	1,831	2,069,679	3,991	4,614	14	..	..	670	..	953	2
Madras	17,245,277	2,100,495	..	..	8,631,922	(b) 37,000	25,877,199	2,13,74,495	925	113	..	..	10,463	45	1,329	110
Bombay	58,188,699	14,76,043	21,86,196	..	69,492	..	60,444,387	14,76,043	4,862	123	4,417	..	..	..	4,850	118
Total 1912-13 ..	185,318,638	85,14,039	28,761,685	13,40,686	76,638,543	12,29,949	290,718,866	1,10,84,674	1,913	88	3,387	158	574	9	1,217	46
„ 1911-12 ..	166,538,603	80,50,904	28,351,270	14,70,953	62,304,550	11,12,869	257,194,423	1,06,34,726	1,732	84	3,337	173	450	8	1,059	44
„ 1910-11 ..	160,096,649	73,24,167	37,918,742	8,51,191	62,567,784	13,52,464	260,583,175	95,27,822	1,661	76	4,457	100	451	10	1,070	39
„ 1909-10 ..	148,584,547	65,72,945	35,563,965	5,10,160	56,984,415	12,28,313	241,132,930	83,11,418	1,540	68	4,035	58	406	9	982	34
„ 1908-09 ..	}	Full details	not available.			}	232,035,865	79,00,028	} Full	details	not available.			..	{ 960	33

(a) Excludes lapsed or seized timber and Guzara Forests.

(b) Outturn of reserved and unreserved lands.

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

Province.	Timber.					Fuel.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By Free grantees.	By Right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	83,201	6,005,608	17,714	..	6,106,523	3,396	15,551,930	2,218,690	..	17,774,016
United Provinces	126,826	5,415,744	82,467	356,622	5,983,659	938,774	5,315,086	2,70,524	2,814,539	9,338,923
Punjab	210,403	6,250,172	139,400	1,312,509	7,912,484	917,943	2,659,926	117,526	12,317,834	16,013,229
Burma	2,570,137	34,475,968	1,471,497	1,387,074	39,904,676	1,248,658	22,687,334	480,349	1,520,225	25,936,566
Bihar and Orissa	19,937	1,049,332	27,093	199,659	1,296,021	15,688	2,061,471	1,867	14,006,865	16,085,891
Assam	233,193	6,093,596	997,787	..	7,324,576	27,057	2,164,044	4,719,104	7,200	6,917,405
Central Provinces	887,430	8,197,322	128,969	74,364	9,288,0 85	1,207,212	23,408,577	1,141,747	1,374,019	27,131,555
Coorg	200,469	170,163	..	..	370,632	17,920	111,960	..	..	129,880
North-West Frontier Province ..	3,595	2,898,760	12,654	6,639	(a) 2,921,648	108,563	355,706	138,339	34,980	(a) 637,588
Ajmer	141	2,830	..	6,341	9,312	105,185	897,449	2,019	..	1,004,653
Baluchistan	3,248	2,769	7,819	..	13,836	26,663	199,780	..	..	226,443
Andamans	652,249	35,961	29,625	(b) 22,607	740,442	950,077	65,440	237,000	(a) 76,720	1,329,237
Madras	710,239	3,928,741	119,098	34,193	4,792,271	5,303,751	15,521,027	105,296	154,854	21,084,928
Bombay	1,976,048	5,775,206	123,043	421,787	8,296,084	4,384,249	31,846,837	29,729	15,887,488	52,148,303
Total 1912-13	7,677,116	80,302,172	3,157,166	3,823,795	94,960,249	15,255,136	122,846,567	9,462,190	48,194,724	195,758,617
„ 1911-12	6,560,737	62,036,563	2,356,266	3,478,234	74,331,800	22,289,684	107,437,118	6,822,664	46,312,617	182,862,623
„ 1910-11	6,754,486	60,347,327	2,148,514	3,261,808	72,512,145	21,811,830	110,724,396	6,723,782	75,009,022	138,071,030
„ 1909-10	6,73,088	54,516,295	2,130,724	2,609,490	65,990,597	22,412,511	90,751,966	5,911,229	56,065,627	175,142,333
„ 1908-09	6,758,266	53,274,103	1,814,338	2,563,187	64,409,894	20,104,263	94,238,730	6,157,792	47,125,156	167,625,971

(a) Excluding Guzara forests and lapsed or seized timber.
(b) Removed by District Officers.

STATEMENT XIV—contd.

Forest produce removed by different agencies—contd.

Part II.—Value of minor forest produce.

Province.	Bamboos.					Grazing and Fodder Grass.					Other Minor produce.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	66	50,100	10,926	..	61,092	..	86,553	1,541	..	88,094	354	1,54,033	1,953	..	156,340
United Provinces..	542	1,62,974	..	1,284	1,64,800	195	1,36,262	7,523	79,746	2,23,726	1,47,858	2'26,505	4,611	2,738	3,81,712
Punjab	4,754	10,577	..	181	15,512	..	2,11,084	3,655	19,64,454	21,79,193	95,688	15,253	122	45,090	1,56,153
Burma	468	2,38,416	86	13,930	2,52,900	..	8,862	39,681	2,30,624	2,79,167	1,267	2,50,691	2,897	50,650	3,05,505
Bihar and Orissa	11,475	23,088	101	20,035	54,699	..	7,949	90	82,372	90,411	89	664,927	55	19,237	84,308
Assam	62	36,815	5,470	..	42,347	..	64,355	1,86,261	15	2,50,631	37,723	1,90,846	2,24,260	..	4,52,829
Central Provinces	6,550	2,17,896	6,741	3,980	2,35,167	76,260	14,06,314	37,253	17,208	15,37,035	25,091	2,71,918	25,066	4,167	3,26,242
Coorg	124	(a) 1,520	..	..	1,644	..	1,373	..	104	1,477	..	21,926	..	..	21,926
North-West Frontier Province.	..	..	..	..	..	..	10,053	17,783	(b) 6,210	34,046	72	13	13	..	98
Ajmer	..	740	..	..	740	759	2,472	639	20,673	24,543	570	635	..	..	1,205
Baluchistan ..	..	..	..	..	..	..	1,602	..	41,470	43,072	..	491	40	..	531
Andamans ..	13	49	248	155	465	..	..	..	..	..	576	348	2,518	84	3,526
Madras ..	58,444	205,704	1,023	66	2,65,237	5,298	6,62,393	9,297	1,500	6,78,488	49,446	11,17,171	3,379	23,774	11,93,770
Bombay ..	18	90,892	604	10,448	101,960	2,74,737	5,17,539	13,192	3,12,886	11,17,354	20,849	1,68,963	1,336	65,581	2,56,729
Total 1912-13	82,514	10,38,771	25,199	50,079	11,96,563	3,57,249	31,15,811	3,16,915	27,57,262	65,47,237	3,79,583	24,83,720	2,66,250	2,11,321	33,40,874
„ 1911-12	1,23,106	10,71,367	14,503	80,495	10,89,471	3,40,149	25,90,178	3,51,957	29,13,447	61,95,628	4,59,916	21,26,552	2,57,512	3,05,647	31,49,627
„ 1910-11	1,20,352	9,44,280	12,204	84,104	11,60,940	10,521	24,63,347	2,67,505	22,14,020	49,55,393	2,83,744	20,52,922	2,76,733	7,97,507	34.10 906
„ 1909-10	1,15,827	9,26,627	9,294	1,03,059	11,54,807	15,668	25,19,907	2,45,636	8,12,436	35,93,647	3,48 747	21,07,944	2,48,075	8,58 198	35,62,964
„ 1908-09	1,10,111	7,50,323	..	(c) 1,00,851	9,61,285	Included	in Columns	12-16.	..	..	2,95,435	45,90,483	4,79,059	15,73,766	69,38,743

(*a*) Includes also price of 75,500 reeds.
(*b*) Includes fodder leaves.
(*c*) Includes free grants.

STATEMENT XV.

Exports of forest produce.

ARTICLES OF FOREST PRODUCE.	QUANTITY IN TONS OF 20 CWT. IN THE CASE OF TEAK AND OTHER TIMBERS, CUBIC TONS.		VALUATION AT PORT OF SHIPMENT IN 1912-13.	
	Average of 5 years 1907-08 to 1911-12,	In 1912-13.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc, raw	194	731	59,13,893	8,090
Lac — Button	1,813	2,075	21,86,106	1,054
Lac — Shell	17,715	16,809	1,76,81,250	1,054
Lac — Stick, seed and other kinds ..	1,952	2,524	12,65,828	501
Cutch and gambier	3,675	3,438	10,66,483	310
Myrabolams	73,198	69,888	62,14,190	89
Cardamums	136	119	5,66,471	4,760
Sandal, Ebony and other ornamental woods ..	(a)	(a)	15,71,194	..
Teak	40,769	61,421	95,24,339	155
Other timbers	5,304	9,066	7,90,859	87
Total in 1912-13 ..			4,67,80,613	
„ 1911-12 ..			3,96,36,932	
„ 1910-11 ..			4,26,71,543	
„ 1909-10 ..			(b) 4,20,96,717	
„ 1908-09 ..			(b) 4,06,20,228	

(a) Quantity (whether by weight or measurement) not recorded.

(b) Corrected figure. Includes "other timbers" previously excluded.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province. (1)	Timber. (2)	Fuel. (3)	Bamboos. (4)	Grass and grazing. (5)	Other minor produce. (6)	Total (7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	847	22,534	10,926	38,089	1,953	74,349
United Provinces	57,100	45,393	1,284	1,22,283	8,249	2,34,309
Punjab	63,310	6,32,113	181	19,84,174	45,212	27,24,990
Burma	2,36,668	10,804	16,328	2,70,305	51,235	5,85,340
Bihar and Orissa	15,737	1,32,940	20,136	82,462	20,262	2,71,537
Assam	83,048	68,361	5,470	1,86,524	2,24,499	5,67,902
Central Provinces	13,139	61,836	26,761	3,53,856	34,483	4,90,075
Coorg	..	..	..	104	..	104
North-West Frontier Province	2,420	4,758	..	23,893	113	31,184
Ajmer	793	202	..	21,312	..	22,307
Baluchistan	1,589	..	..	41,470	233	43,292
Andamans	1,045	7,844	403	..	2,602	11,894
Madras	24,582	4,665	1,089	12,741	27,002	70,079
Bombay	1,03,714	7,70,439	26,022	6,26,465	2,46,917	17,73,557
Total 1912-13	6,03,992	17,61,889	1,08,600	37,63,678	6,62,760	69,00,919
„ 1911-12	5,21,934	17,85,668	1,23,517	37,62,335	7,94,414	69,87,868
„ 1910-11	4,95,091	13,50,942	1,24,953	26,03,134	7,84,434	53,58,554
„ 1909-10	5,91,704	12,73,626	1,12,782	19,86,080	7,07,099	46,71,292
„ 1908-09	4,95,943	16,46,785	1,00,851	13,50,711	10,03,160	45,97,450

STATEMENT XVII.

Details of revenue and expenditure for the Forest year, 1912-13.

					Rs.
Gross Receipts ..	(a) Wood ..				24,098,868
	(b) Minor forest produce				3,467,978
	(c) Forest stamps and commutation fees for forest produce				133,109
	(d) Grazing				3,107,066
	(e) Revenue from forests not managed by Government				361,011
	(f) Miscellaneous				1,391,376
			Total Revenue ..		32,559,408
Expenditure ..	A. Recurring ..	(a) Administration.	(i) Superior Staff		3,439,273
			(ii) Subordinate Staff (including Rangers, Foresters and Guards).		3,137,180
			(iii) Office Establishments (including Contingencies).		1,764,459
		(b) Working	(1) Extraction		3,416,482
			(2) Roads and Buildings		1,591,806
			(3) Fire protection		671,986
			(4) Cultural operations		741,892
			(5) Live-stock, stores and plant		442,281
			(6) Working-Plans		82,419
			(7) Rent for leased forests		352,993
			(8) Miscellaneous		207,928
		(c) Expenditure on realization of revenue from forests not managed by Government.			7,555
		(d) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute.*			265,688
			Total ..		1,61,21,942
	B. Extraordinary	(e) Forest Settlement			131,541
		(f) Forest Survey ..			55,093
		(g) Forest Demarcation			142,333
			Total ..		3,28,967
			GRAND TOTAL OF EXPENDITURE ..		1,64,50,909
			Net Revenue ..		1,61,08,499

*Expenditure under this head in provinces has been included in (a) Administration.

STATE

Summary of revenue and expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Bihar and Orissa.	Assam.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
REVENUE.							
I.—Timber and other produce removed from the forests by Government agency.	7,461	1,07,835	3,60,619	2,42,110	25,57,845	37,107	1,96,603
II.—Timber and other produce removed from the forests by consumers or, purchasers.	5,196	14,41,409	30,37,163	8,57,975	77,28,567	3,87,815	7,73,641
III.—Drift and waif wood and confiscated forest produce.	..	1,836	19,458	47,994	234,521	2,332	20,889
IV.—Revenue from forests not managed by Government	..	..	17,218	3,388	241,951	..	87,576
V.—Miscellaneous	..	49,521	1,09,505	87,566	1,59,509	11,704	63,382
Total Revenue ..	(a) 12,837	16,00,601	35,43,963	12,39,033	109,22,393	4,38,958	11,42,091
EXPENDITURE.							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forest by Government agency.	308	36,767	2,58,049	1,08,536	7,81,360	8,564	1,03,177
II.—Timber and other produce removed from the forests by consumers or purchasers.	..	1,12,100	54,478	6,378	1,18,712	9,802	13,887
III.—Drift and waif wood and confiscated forest produce.	..	1,370	4,957	17,834	76,858	918	1,262
IV.—Revenue from forests not managed by Government.	..	..	2,616	..	149	..	3,519
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	..	1,096	1,31,513	46,996	..	19,284	50,563
VI.—Live-stock, stores, tools and plant	..	18,192	33,140	13,020	1,31,525	7,507	41,571
VII.—Communications and buildings ..	..	1,14,704	2,04,683	55,919	2,55,647	94,811	1,29,110
VIII.—Demarcation, improvements and extension of forests.	1,387	44,545	2,86,984	63,768	4,61,055	25,804	41,459
IX.—Miscellaneous	..	3,309	28,394	16,244	37,172	2,496	13,048
Total A.—Conservancy and Works ..	(b) 1,695	3,32,083	10,04,814	3,28,695	18,62,478	1,69,186	3,97,596
B.—Establishments.							
I.—Salaries	(c) 1,01,976	2,70,935	4,93,936	3,53,183	18,82,925	1,72,345	3,26,066
II.—Travelling Allowances	(c) 185	42,305	77,841	78,629	2,99,387	26,098	62,326
III.—Contingencies	(d) 306	15,411	52,673	38,669	93,794	8,265	22,923
Total B—Establishments	1,02,167	3,28,711	6,24,450	4,70,481	22,76,106	2,06,708	4,11,315
Grand Total of Expenditure ..	1,04,162	6,60,794	16,29,264	7,99,176	41,38,584	3,75,894	8,08,911
Surplus	..	9,39,807	19,14,699	4,39,857	67,83,809	63,064	3,33,180
Deficit	91,325	..	..	..	..	..	..
Proportion of surplus to gross revenue..	..	59	46	36	62	19	29
Net revenue per square mile of forest area under control of Forest Department.	..	89	458	50	..	30	15

(a) Includes revenue derived from Indore and Bangalore
(b) Includes expenditure on account of Indore and Bangalore.
(c) Includes expenditure on account of Indore.
(d) Includes expenditure on account of Indore.

MENT XVIII.

Forest Department in India for the financial year 1912-13.

Central Provinces.	Coorg.	North-West Frontier Province.	Ajmer.	Baluchistan.	Andamans.	Forest College and Research Institute.	Forest Surveys (Imperial).	Madras.	Bombay.	TOTAL.
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3,18,324	2,30,702	25,190	7,410	10,055	4,42,728	..	..	10,40,116	19,34,645	7,518,930
27,17,690	49,040	2,01,586	27,535	3,109	5,817	..	..	25,89,389	28,69,652	2,26,95,584
3,540	..	1,393	23	..	..	..	..	17,110	6,583	3,55,679
470	..	387	..	6,806	..	..	..	..	6,248	3,64,044
1,31,791	1,910	8,627	1,628	189	1,380	7,611	..	4,65,858	1,75,391	12,75,572
31,71,815	2,81,652	2,37,183	36,596	20,159	4,49,925	7,611	..	41,12,473	49,92,519	3.22,09,809
1,86,096	27,657	19,087	3,266	6,998	1,44,578	..	..	3,41,982	8,61,007	28,87,432
1,40,057	..	419	361	..	69	..	..	1,30,799	44,557	6,31,619
89	..	415	..	..	..	..	..	2,218	564	1,06,485
..	..	..	..	178	..	..	..	..	..	6,462
..	..	30,265	7,588	..	..	..	..	17,225	33,963	3,38,493
35,506	8,423	1,069	162	115	27,323	8,351	..	1,43,606	19,727	4,89,237
2,11,570	29,001	11,435	1,479	457	2,774	11,369	..	3,46,332	1,50,277	1,637,568
2,24,771	27,413	1,725	2,424	266	20,110	..	35,809	5,91,349	1,67,293	19,96,162
24,080	2,045	1,937	291	226	2,413	20,269	..	10,807	64,634	2,27,365
8,22,169	94,539	66,352	15,571	8,240	1,97,267	39,989	35,809	16,02,318	13,42,022	83,20,823
9,21,007	57,127	44,566	11,262	18,350	51,144	1,84,223	..	11,63,949	11,17,600	71,70,954
1,15,449	7,865	7,764	1,919	1,569	5,824	16,617	..	2,39,144	1,76,527	11,59,449
88,110	2,013	3,491	962	368	906	27,616	..	1,45,071	56,306	5,56,584
11,24,556	67,005	55,821	14,143	20,287	57,874	2,28,456	..	15,48,164	13,50,433	88,86,987
19,46,735	1,61,544	1,22,173	29,714	28,527	2,55,141	2,68,445	35,809	31,50,482	26,92,455	1,72,07,810
12,25,080	1,20,108	1,15,010	6,882	..	1,94,784	..	..	9,61,991	23,00,064	1,50,01,999
..	..	..	..	8,368	..	2,60,834	35,809	..	..	..
39	43	48	19	..	43	..	..	23	46	39
60	231	487	49	..	90	..	..	49	185	..

STATE

Revenue, expenditure and surplus of the Forest Department

(I) RE

PROVINCE.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-00.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial*	4,017	4,759	6,370	6,688	5,240	2,680	4,980	2,690	4,100	19,130	17,540	6,090
Bengal†	6,76,907	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,13,710	13,70,850	11,89,280	9,72,310	11,38,910
United Provinces ..	14,62,802	17,14,159	16,37,879	17,31,514	16,52 540	17,09,860	16,58,250	16,01,340	14,44,820	13,86,670	15,68,040	16,14,740
Punjab	10,45,768	9,21,713	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500	11,07,720	10,68,470	14,74,430	14,00,770
Burma	41,89,233	49,40,786	43,21,968	41,85,414	56,60,000	57,85,100	54,36,780	56,95,830	63,78,950	72,15,260	83,50,890	78,12,050
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam ‡	3,03,882	3,79,498	3,26,793	3,36,129	3,82,830	4,88,500	4,35,090	4,25,030	4,36,440	3 84,820	3,98,180	5,68,100
Central Provinces ..	15,88,382	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140	11,80,400	14,34,940	12,97,490
Coorg	1,36,183	92,753	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910	1,55,070	1,62,410
North-West Frontier Province	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer.	13,574	11,592	15,266	19,799	14,890	14,620	12,840	15,640	12,370	15,540	14,420	10,270
Baluchistan	5,668	13,897	15,724	20,609	19,030	20,730	16,300	14,930	15,460	15,040	14,920	17,060
Andamans	1,06,075	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710	2,29,460	2,60,600
Imperial Forest College and Research Institute.	449	1,237	1,184	1,788	1,980	1,990	2,790	4,310	2,850	2,890	2,360	3,210
Forest Surveys (Imperial)	315	220	2,104	257	520	240	80	510	400	220	290	420
Total ..	95,33,255	1,06,08,249	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14,52,140	1,25,20,470	1,30,42,340	1,46,32,850	1,42,92,120
Madras	15,15,006	15,57,627	17,95,408	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	23,03,330	21,36,490	21,10,520	23,02,290
Bombay	28,50,190	31,37,696	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670	30,32,710	26,16,660	22,95,150	24,15,200
GRAND TOTAL ..	1,38,98,451	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490	1,90 38,520	1,90,09,610

(II) EXPEN

Imperial*	86,199	81,311	85,414	65,788	1,07,270	80,840	84,950	80 410	78,960	84,300	85,460	96,550
Bengal†	3,76,270	3,98,150	4,14,004	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070	6,90,040	6,53,440	4,86,320	5,45,210
United Provinces ..	8,44,544	9,63,151	9,19,195	9,58,211	9,23,540	9,63,020	9,36,310	9,42,860	9,06,340	9,17,850	9,72,030	9,42,380
Punjab	5,93,885	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7 23,300	7,71,940	8,55,340	12,11,460
Burma	20,17,073	16,06,644	13,88,789	16,98,980	18,05,000	18,62,500	19,17,990	19,33,600	21,28,820	21,96,610	24,26,190	24,47,440
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	2,09,905	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010	2,88,830	3,05,360	3,57,140
Central Provinces ..	8,62,864	8,79,458	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,02,860	11,65,490	11 09,400	12,75,820
Coorg..	80,175	72,420	65,818	86,860	73,090	86,890	86,140	85,840	71,630	87,020	80,100	74,220
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	15,676	12,701	12,720	13,986	15,000	15,900	14,900	15,730	22,010	14,670	16,300	15,350
Baluchistan	15,994	17,962	29,450	30,497	55,620	63,730	40,910	41,770	29,770	27,330	27,760	28,680
Andamans	57,295	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600	2,47,340	1,38,400	1,40,940
Imperial Forest College and Research Institute.	32,961	29,646	35,191	44,347	50,400	65,530	65,980	67,950	67,380	60,920	63,370	73,550
Forest Surveys (Imperial)	22,164	21,188	24,324	26,982	22,160	27,900	29,840	29,950	31 970	33,950	33,970	33,980
Total ..	52,15,005	50,80,590	49,46,325	54,38,471	56,70,870	59,05,990	59,19,020	59,28,610	65,41,690	65,49,690	66,00,000	72,42,720
Madras	12,20,794	11,61,237	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,300	15 72,850	15,94,670	16,53,530
Bombay	16,03,962	17,70,691	18,69,887	19,31,157	19,04,970	20,71,940	20,67,920	19,58,390	19,69,160	20,73,190	18,39,250	21,28,430
GRAND TOTAL ..	81,29,761	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680

(III)

Imperial*	—82,182	—76,552	—79,044	—59,100	—1,02,030	—78,160	—79,970	—77,720	—74,860	—65,170	—67,920	— 90,460
Bengal†	3,00,637	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,89,280	4,52,640	6,80,810	5,35,840	4,85,990	5,93,700
United Provinces ..	6,18,258	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	538,480	4,68,820	5,96,090	6,72,360
Punjab	4,51,883	2,75,858	1,81,329	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530	6,19,010	1,89 310
Burma	21,72,160	33,34,142	29,33,179	24,86,434	38,55,000	39,22,600	35,18,790	37,62,230	42 50 130	50,18,650	59,24,700	53,64,610
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	93,977	1,22,369	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990	92,820	2,10,960
Central Provinces ..	7,25,518	7,17,264	7,96,095	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430	98,280	14,910	3,25,540	21,670
Coorg..	56,008	20,333	69,743	96,037	1,07,590	86,900	66,910	49,410	21,370	43,890	47,970	88,190
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	—2,102	—1,109	2,546	5,813	—110	—1,280	—2,060	—90	—9,640	870	—1,880	—5,080
Baluchistan	—10,326	—4,065	—13,726	—9,888	—36,590	—43,000	—24,610	—26,840	—14,310	—12,290	—12,840	—11,620
Andamans	48,780	67,220	28,274	92,429	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370	91,060	1,19,660
Imperial Forest College and Research Institute.	—32,512	—28,409	—34,007	—42,559	—48,420	—63,540	—63,190	—63,640	—64,530	—58,030	—61,010	—70,340
Forest Surveys, (Imperial)	—21,849	—20,968	—22,220	—26,625	—21,640	—27,660	—29,760	—29,440	31,570	—33,730	—33,680	—33,560
Total ..	43,18,250	55,27,659	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78 780	64,92,650	80,32,850	70,49,400
Madras	2,94,212	3,96,390	5,48,495	3,69,962	2,46,820	5,84,410	5,67,680	6,64,960	7,69,030	5,68,640	5,15,850	6,48,760
Bombay	11,56,228	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16.82,110	15,78,280	10,63,550	5,43,470	4,54,900	2,86,770
GRAND TOTAL ..	57,68,690	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,84,930

*Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, Office Establishment and undistributable and petty local items and revenue and charges
†Includes figures up to 1910-11 for districts subsequently transferred to Bihar and Orissa.
‡Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred to Bengal.

MENT XIX.

throughout India during the 25 financial years from 1888-89 to 1912-13,

VENUE.

1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	PROVINCE.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
2,463	3,484	3,659	7,455	3,768	7,255	--	7,666	8,189	10,632	8,662	10,680	12,837	Imperial.*
12,33,339	12,92,237	12,56,247	10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11,84,845	10,80,640	11,67,444	11,22,442	16,00,601	Bengal †
15,65,463	17,15,508	20,25,324	22,80,446	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	23,78,439	30,16,160	35,43 963	United Provinces.
13,50,842	14,47,558	15,86,408	17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,633	12,17,988	13,10,077	12,39,033	Punjab.
80,54,444	58,73,938	67,39,053	82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	19,92,032	93,58,077	1,00,70,117	99,67,594	1,09,22,393	Burma.
..	..	..	..	..	..	..	..	..	..	..	4,07,213	4,38,958	Bihar and Orissa.
5,49,521	5,12,963	5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,34,732	18,90,635	11,46,320	11,42,091	Assam.‡
12,65,614	15,79,116	16,84,428	19,98,032	20,13,459	24,49,131	24,01,159	22,90,128	20,78,162	20,78,340	21,14,226	25,49,854	31,71,815	Central Provinces and Berar.
1,37,596	1,70,242	1,90,730	2,24,031	1,93,087	2,45,419	2,35,909	2,74,756	2,24,330	2,13,129	2,76,055	2,95,170	2,81,652	Coorg.
--	13,012	1,01,123	1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	1,58,171	2,37,183	North-West Frontier Province.
10,646	6,865	9,736	13,884	17,297	15,002	18,335	29,864	27,615	23,990	33,846	26,361	36,596	Ajmer.
16,956	14,712	19,336	18,363	22,555	21,481	21,195	24,829	23,305	18,729	23,212	20,117	20,159	Baluchistan.
2,77,886	2,66,903	3,26,035	4,32,381	6,20,796	5,82,511	6,07,027	2,19,822	2,02,018	2,59,477	4,16,773	5,22,160	4,49,925	Andamans.
3,697	3,545	3,252	3,038	3,557	3,080	4,579	6,137	4,680	4,909	4,080	5,550	7,611	Imperial Forest College and Research Institute.
327	473	3,034	431	..	..	--	--	--	--	--	--	..	Forest Surveys (Imperial).
1,44,68,794	1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	1,98,06,819	2,05,57,869	2,31,04,817	Total.
23,40,170	25,43,430	26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	38,00,919	41,78,381	38,80,411	41,68,921	41 12,473	Madras.
29,61,529	23,79,729	23,29,156	27,51,539	30,20,558	34,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	43,30,569	49,92,519	Bombay.
1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	2,90,57,359	3,22,00,809	GRAND TOTAL.

DITURE.

83,578	79,539	85,017	89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	94,714	1,04,162	Imperial.*
5,70,806	6,57,131	6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	7,06,374	6,60,794	Bengal.†
9,63,439	10,08,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,91,013	12,22,436	12,09,308	12,37,938	13,63,673	16,20,264	United Provinces.
8,87,343	9,38,335	9,60,095	11,56,415	10,12,354	12,65,664	11,44,403	11,76,696	8,51,627	6,67,752	7,40,542	7,65,146	7,99,176	Punjab.
26,54,717	26,46,457	28,90,263	33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	38,42,799	41,31,162	41,38,584	Burma.
..	..	..	..	..	..	..	..	..	..	..	3,00,916	3,75,894	Bihar and Orissa.
3,47,972	3,29,112	3,27,498	4,25,484	5,03,656	5,93,910	7,07,860	8,00,373	8,91,349	10,12,541	10,87,340	8,41,013	8,08,011	Assam.‡
11,65,866	12,00,904	12,57,288	12,80,966	13,20,615	13,07,153	13,42,878	15,83,407	17,53,307	15,86,852	15,89,533	18,38,379	19,46,735	Central Provinces and Berar.
70,905	82,333	89,437	92,191	83,820	95,748	1,02,855	1,04,819	99,595	1,07,822	1,07,679	1,21,174	1,61,544	Coorg.
..	19,510	54,086	60,603	74,958	95,258	93,650	88,400	81,413	77,391	72,492	89,436	1,22,173	North-West Frontier Province.
16,782	15,927	16,377	16,680	15,641	17,131	16,715	18,188	19,916	19,272	19,918	22,343	29,714	Ajmer.
29,254	24,480	23,240	21,697	24,672	25,743	26,322	31,258	36,586	26,549	26,387	28,947	28,527	Baluchistan.
1,40,137	2,04,667	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	2,26,963	2,61,732	2,55,141	Andamans.
71,238	76,290	66,338	59,330	61,424	80,669	1,37,486	1,58,038	1,83,191	1,96,174	2,19,183	2,63,441	2,68,445	Imperial Forest College.
33,991	33,730	33,985	33,935	28,229	30,044	30,389	27,060	39,128	41,062	41,140	38,798	35,809	Forest Surveys (Imperial).
70,36,028	73,17,154	77,37,338	86,40,126	90,77,954	98,65,826	95,92,956	97,76,649	97,64,900	95,17,931	99,47,805	1,08,67,248	1,13,64,873	Total.
17,15,431	17,09,554	18,35,552	17,50,930	19,86,098	22,66,602	24,80,660	27,80,857	29,17,261	33,30,635	32,25,801	34,14,882	31,50,482	Madras.
24,08,581	17,19,680	16,76,441	17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	20,63,088	20,70,417	26,64,436	26,02,455	Bombay.
1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,933	1,47,26,034	1,49,20,654	1,52,44,023	1,69,46,566	1,72,07,810	GRAND TOTAL.

SURPLUS.

—81,115	—76,055	—81,358	—81,890	—79,290	—76,512	—95,472	—92,538	—95,994	—93,700	—83,944	—84,034	—91,325	Imperial.*
6,62,533	6,35,106	6,18,233	3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,159	4,16,068	9,39,807	Bengal.†
6,02,024	7,06,769	10,11,326	11,99,008	10,05,735	10,28,246	11,96,013	12,15,732,	9,52,970	10,91,586	11,40,501	16,52,487	19,14,699	United Provinces.
4,63,499	5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2,30,753	4,37,165	3,64,881	4,77,446	5,44,931	4.39,857	Punjab.
53,99,727	32,27,481	38,48,790	49,16,131	55,12,832	63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	58,36,432	67,83,809	Burma.
..	..	..	..	..	..	..	..	..	..	..	1,06,297	63,064	Bihar and Orissa.
2,01,549	1,82,851	2,52,701	2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	3,05,307	3,33,180	Assam.‡
99,748	3,78,212	4,27,140	7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	4,91,488	5,24,693	7,11,475	12,25,080	Central Provinces and Berar.
66,691	87,909	1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	124,735	1,05,307	1,68,376	1,73,996	1,20,108	Coorg.
--	—6,498	47,038	41,230	16,033	33,271	89,564	1,50,090	41,369	95,914	1,32,850	68,735	1,15,010	North-West Frontier Province.
—6,136	—9,062	—6,641	—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	13,928	4,018	6,882	Ajmer.
—12,298	—9,768	—3,904	—3,334	—2,117	—4,262	—5,127	—6,429	—13,281	—7,820	—3,175	—8,830	—8,368	Baluchistan.
1,37,749	62,236	44,333	1,66,260	2,78,365	2,46,526	3,11,891	62,555	21,077	65,318	1,89,810	2,60,428	1,94,784	Andamans.
—67,541	—72,745	—63,086	—56,301	—57,867	—77,589	—1,32,907	—1,51,901	—1,78,511	—1,91,265	—2,15,103	—2,57,891	—2,60,834	Imperial Forest College
—33,664	—33,257	—30,951	—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	—38,798	—35,809	Forest Surveys (Imperial).
74,32,766	55,83,402	67,91,227	81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,826	98,59,014	96,90,621	1,17,39,944	Total.
6,24,739	8,33,876	7,78,267	9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	7,54,039	9,61.991	Madras.
5,52,048	6,60,049	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47.807	16,66,133	23,00,064	Bombay.
86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	1,21,10,793	1,50,01,999	GRAND TOTAL.

account of Indore and Bangalore. Excludes Home charges.

G. M. Press, Simla —No. 119 R. & A.—13-11-14.—442.—E.A.

DIAGRAMS
ILLUSTRATING
PRINCIPAL RESULTS
OF
FOREST ADMINISTRATION
IN
BRITISH INDIA.

DIAGRAM I.

Reserved, Protected, and Unclassed Forests and Area under working plans.

DIAGRAM II.

Area open to grazing.

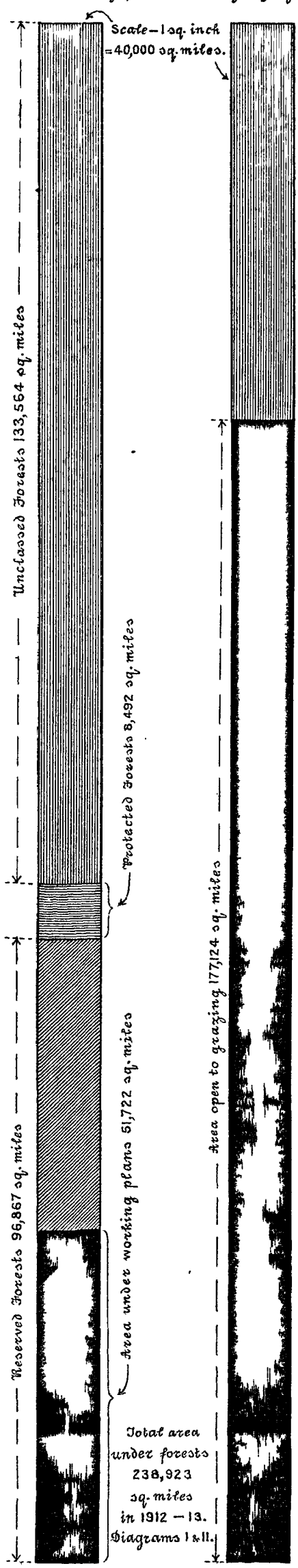

Scale—1 sq. inch = 40,000 sq. miles.
Unclassed Forests 133,564 sq. miles
Reserved Forests 96,867 sq. miles
Protected Forests 8,492 sq. miles
Area under working plans 51,722 sq. miles
Area open to grazing 177,124 sq. miles
Total area under forests 238,923 sq. miles in 1912—13.
Diagrams I & II.

DIAGRAM III.

Cases of breaches of Forest Rules.

Vertical scale—1 inch = 20,000 cases.

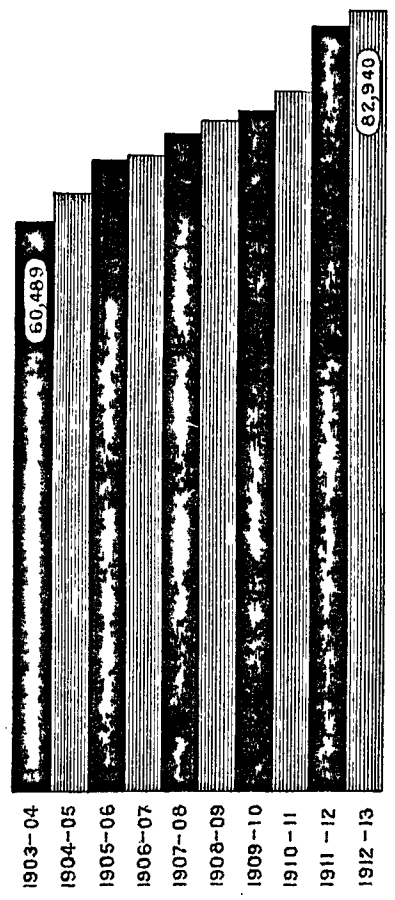


DIAGRAM IV.

Number of animals grazed in Government Forests.

Vertical scale—1 inch = 4,000,000 head.

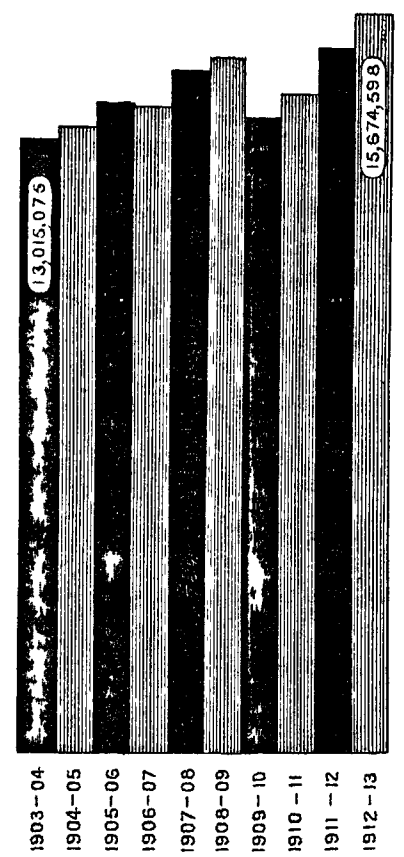


DIAGRAM V.

Outturn of timber and fuel in tons of 50 c. ft.

Vertical scale—1 inch = 2,000,000 tons.

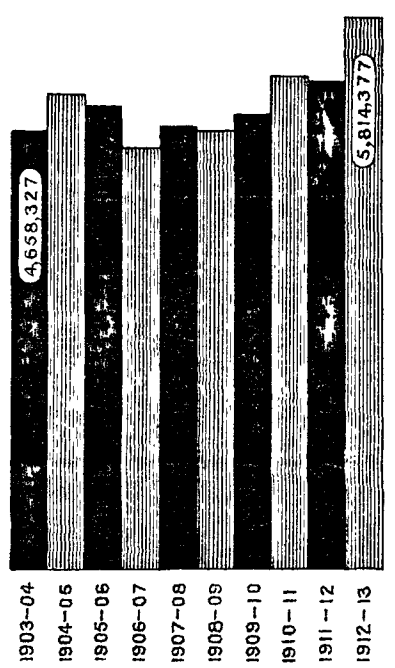
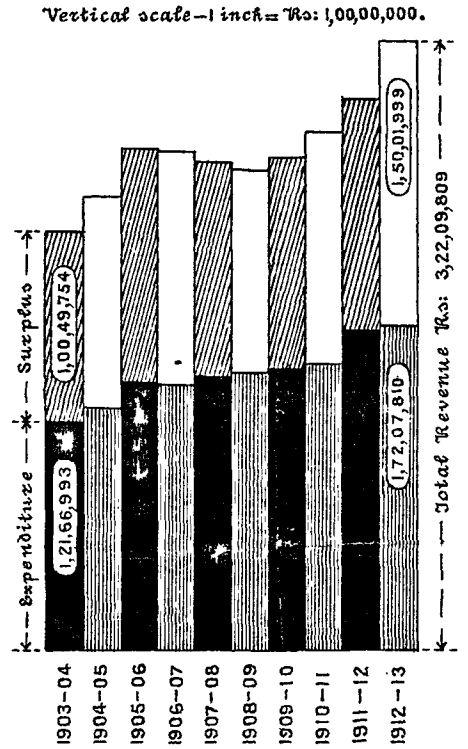


DIAGRAM VI.

Forest Revenue & Expenditure.

(Financial years)

Vertical scale—1 inch = Rs: 1,00,00,000.



D.S. P.W.D. G. 6F 11, 5-10-14.

QUINQUENNIAL REVIEW

OF

FOREST ADMINISTRATION

IN

BRITISH INDIA

FOR THE PERIOD

1909-10 to 1913-14

TO WHICH IS APPENDED

THE ANNUAL RETURN OF FOREST STATISTICS

FOR THE YEAR

1913-14.

SIMLA:
PRINTED AT THE GOVERNMENT MONOTYPE PRESS.
1915.

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No. 903-F.—208—1.

GOVERNMENT OF INDIA.

DEPARTMENT OF REVENUE AND AGRICULTURE.

FORESTS.

Simla, the 21st July 1915.

The following review of forest administration in British India during the five years ending the 30th June 1914 is published for general information.

Review of Forest Administration in British India during 1909-1914.

Constitution of the forests.

Forest Areas.

1. The areas controlled by the Forest Department are classed either as reserved, protected or unclassed State forests. In reserved forests boundaries are clearly defined and demarcated and rights carefully recorded at settlement; in protected forests boundaries are not always demarcated and the record of rights is less perfect; while in the large areas of Government waste, known as unclassed State forests, systematic management is not attempted and the control of the Department is confined, generally speaking, to revenue collection until suitable blocks are converted into reserved or protected forests or until areas are taken up for cultivation.

On the 30th June 1914, at the close of the quinquennial period now being dealt with, the total forest area in British India (including the Shan States) was 245,612 square miles, of which 96,297 square miles were reserved and 8,390 protected forests, the remainder (140,925 square miles) being unclassed State forests. It is a striking fact that of the total area of British India (including the Shan States) more than one-fifth is under the control of the Department and nearly one-tenth under regular protection.

Between 1909 and 1914 the net increase in the area of the reserves was 1,736 square miles. In the Central Provinces, no less than 2,237 square miles classed as suitable for the extension of cultivation were disforested for this purpose, while in Burma 3,751 square miles of unclassed forest were reserved. Elsewhere, the reserved area remained fairly steady, and in most parts of India no marked variations are to be expected. The reserved area, however, may be increased by the conversion of protected into reserved forests and this indeed is contemplated on a large scale in the United Provinces, while on the other hand the reserved area is from time to time reduced by the relinquishment of isolated blocks which do not repay the trouble and expense of management or by the disforestation of areas required for ordinary cultivation. In Burma and Assam, however, where there are very large areas of unclassed forests, considerable portions of which might, without prejudice to the demands of cultivation, be brought under permanent control, further provision for the future is necessary by the reservation of suitable areas.

Forest Surveys.

During the quinquennial period forest surveys, mainly on the scale of two inches to the mile, were carried out over 5,300 square miles in all provinces except Bengal, by the Survey of India. At the close of the period 77 per cent. of the total area of reserved and protected forests had been surveyed.

Organization.

Administration and Control.

2. Until his retirement in April 1913, the appointment of Inspector General of Forests was held by Mr. F. Beadon Bryant, C.S.I., when he was succeeded by Mr. G. S. Hart, C.I.E., the present incumbent. Mr. L. Mercer, C.I.E., the President of the Research Institute, officiated for three months in 1911 and Mr. M. Hill, C.I.E., for six months in 1914.

During the period under review the tours of the Inspector General extended over portions of Bengal, Assam, the United Provinces, the Punjab, the Central Provinces, Burma, Madras, the Andamans, Coorg and Kashmir. These tours are of the greatest value not only to the Government of India but also to Local Governments and local officers, as they enable an independent opinion on professional matters to be obtained from an officer of wide experience and tried ability. Thus, to quote two instances only, the value of Mr. Beadon Bryant's note on Forest Revenue and Expenditure in Madras has been warmly acknowledged by the Government of that Presidency, while Mr. Hart's note on the Burma forests deals with questions of vital importance and may have considerable influence on their future management.

In the provinces forest work is controlled by Conservators and in Burma and the Central Provinces by Chief Conservators. These latter posts are of somewhat recent date, having been created in Burma in 1905 and in the Central Provinces provisionally in 1906 and permanently in 1911. But the experience gained during the past ten years has been sufficient to shew that the appointments were fully justified both on financial and on administrative grounds. Technical work is co-ordinated; one adviser, in place of several, is given to the Local Government; and forest revenue increases. Recently a Chief Conservator has been sanctioned for Bombay and the creation of a similar appointment for the United Provinces is now under consideration.

Board of Forestry.

3. An important reform effected in 1910 was the constitution of a Board of Forestry, composed of representative Conservators and Chief Conservators under the presidency of the Inspector General of Forests. Meetings are held at intervals of three years when the programme of research work is considered and questions connected with the Research Institute and College and forest administration generally are discussed. The first meeting of the Board was held between the 31st March and 6th April 1910 and the second between the 24th and 29th March 1913. As a means of furthering the cause of forest education and research, of stimulating commercial exploitation, of co-ordinating work and of interchanging ideas, the Board of Forestry has already proved its value. With the creation of this Board, the old Board of Control of the Imperial Forest College was abolished.

Recruitment and Training.
(a) Imperial Service.

4. Officers of the Imperial Service are recruited under covenant with the Secretary of State and receive their training in England and on the Continent. After the abolition of Coopers Hill College in 1905, probationers were trained at Oxford, but in 1911 it was decided that training might be undergone at any British University possessing a forest school approved by the Secretary of State, and probationers can now be trained at Oxford, Cambridge and Edinburgh. Instruction at these centres is supplemented by a course of practical training in selected forests on the Continent under the supervision of a Director of Indian Forest Studies.

(b) Provincial Service.

Up to the year 1906 members of the Provincial Service were recruited by the promotion of men who had served for a period of years as Rangers. In 1906, with the object of raising the standard of the Provincial Service, a system of direct appointment was introduced and the candidates chosen, either Rangers already in service or young men of good education and social standing, were required to undergo a third year of training at Dehra Dun in addition to the ordinary course of two years. On the completion of this course and of three years' approved service either as Ranger or Probationary Extra Assistant Conservator, the candidate became eligible for permanent promotion to the Provincial Service. This system, which was at best a temporary measure, proved unsatisfactory, and in 1912 a separate two years' course for Provincial Service candidates was prescribed. There can be no doubt that this is a great improvement on the old method of recruitment, but the candidates selected for training have not always been of the standard required, and the Government of India desire to impress on Local Governments and Administrations the importance of careful selection. The lectures, which are given in the new

Forest Research Institute buildings at Dehra Dun, are supplemented by an extensive course of practical training in various parts of India. The arrangements for controlling and housing the students are unfortunately still defective but an estate adjoining the Research Institute has now been acquired and suitable quarters are being erected.

(c) *Subordinate Services.*

Except in Burma and Madras Rangers are trained at the Forest College, Dehra Dun, but for some years past the defects of centralized training have been manifest as, owing to the size of the classes, sufficient attention cannot be given to individual students. The inauguration in 1908 of an English course at the Burma Forest School and the opening of the Madras Forest College at Coimbatore in 1912 have had little effect in relieving the strain as, with additions to the staff, demands from other provinces have increased. As the present state of affairs is so unsatisfactory and as it is desirable that at Dehra Dun attention should be concentrated on the training of candidates for the Provincial Service, it has been decided to decentralize the training of Rangers. Arrangements to give effect to this decision are being made with Local Governments and Administrations and it is probable that within the next two years provincial schools will be started throughout India.

The training of subordinates below the rank of Ranger is carried out locally in forest schools and training classes.

Strength of the Staff.

5. During the quinquennium the increasing activities of the Department have rendered necessary considerable additions to the staff. The sanctioned strength of the Imperial Service increased from 205 to 214, and the actual strength from 196 to 237. In the case of the Provincial Service the sanctioned strength (excluding probationers) increased from 194 to 213 and the number employed from 160 to 197. In addition, 32 Probationary Extra Assistant Conservators were employed at the close of the quinquennium.

The appointment of Chief Conservator of Forests, Central Provinces, and a fourth Conservator for Madras were permanently added to the cadre in 1911, while the reorganization of the cadre in the United Provinces and a Chief Conservator for Bombay have been sanctioned since the 30th June 1914. Following the territorial changes made in 1912, the three forest circles of Bengal and Eastern Bengal and Assam were distributed over the three new provinces and a second Conservator was sanctioned for Assam. Considerable additions were made to the subordinate and clerical staffs in several provinces.

Conservation and improvement.

Fire-protection.

6. Fire-protective measures consist chiefly in maintaining cleared fire lines, external and internal, in organizing an efficient system of patrol, in enlisting the co-operation of the local population, in extinguishing any fires which may arise and in burning inflammable grass lands early in the season.

During recent years the method of early burning has been extended experimentally to some Himalayan forests which are more than usually inflammable, and where regeneration operations are not in progress, and to areas in other parts of India in which the stock is not of sufficient value to justify the cost of complete protection.

Now that fire-protective measures have been carried out over considerable areas for several decades it is possible to come to some conclusion regarding their effect. In the majority of cases the forests have greatly benefited and there can be little doubt that in many types of forest the improvement that has occurred in the growing stock has been due mainly to the effects of fire-protection. At the same time, it must be admitted that in certain cases fire-protection, so far as the natural regeneration of the forests is concerned, has been decidedly harmful as the encouragement given to inferior species and weeds has wholly or partially prevented the survival of seedlings of the principal species. This result has been observed for some time past in the moister types of teak forest in Burma, and it is now generally recognized that in forests of this class fire-protection should be abandoned. Thus, during the last year of the quinquennium the area under protection in Burma has been reduced from 7,727 square miles to 4,548 square miles. It is doubtful, however, whether in teak forests of this class

adequate reproduction can be secured merely by abandoning fire-protection and concentrated regeneration measures will probably also be required.

Another important example of the adverse effects of fire-protection on regeneration has recently come to light in the *sâl* forests of the Bengal and Assam Duars where continued protection has converted the undergrowth, which previously consisted largely of Savannah grasses, into a dense mass of evergreen shrubs and *sau* grass and has so affected the soil aeration that *sâl* seedlings entirely fail to establish themselves. Intensive weedings and experiments in cutting and burning the undergrowth have so far met with little or no success, and it is possible that clear felling and artificial regeneration with the aid of field crops may prove to be the only satisfactory method of ensuring the permanence of the *sâl* in these very valuable forests.

Among injuries from natural causes, local damage from storms, frost, snow and other agencies are of more or less regular occurrence, though no cases of special severity have been reported during the past few years. The abnormal drought caused by the partial failure of the monsoon in 1907 and 1908 had serious results and in the *sâl* forests of Oudh several lakhs of trees died. Investigations have shown that the death of these trees was due primarily to the lowering of the subsoil water-level following deficient rainfall, the mortality being most severe where there was a thick stratum of non-hygroscopic sand in the subsoil.

Diseases and Pests.

7. No light has yet been thrown on the cause of the mysterious spike disease which attacks the sandal tree, though this question is still under investigation. In Coorg alone, nearly 20,000 affected trees were uprooted during the past five years, and although the intensity of the disease has not been reduced, it has not spread to areas previously unaffected. Among dangerous fungoid pests in Himalayan forests may be mentioned *Trametes Pini*, which attacks the blue pine (*Pinus excelsa*), obtaining admission through wounds, particularly where lopping is practised, and *Peridermium Cedri*, a deodar needle fungus hitherto believed to be of little importance, but now known to be the cause of considerable damage in deodar plantations in Kulu. Recently a virulent fungus, not yet identified, has been found on the roots of the *sâl* in the Bengal and Assam Duars, and it seems probable that this fungus is largely responsible for the unusual mortality which has been noticed for some years past among the *sâl* trees of this tract. Steps are now being taken to investigate its life history and to devise, if possible, remedial measures.

Among the noxious weeds at present occupying the attention of the Forest Department, the most important is *lantana*, a shrub which was introduced from tropical America in the early part of last century and which spread so rapidly that for many years past it has covered extensive tracts in Southern India to the exclusion of nearly all other forms of vegetation. Energetic measures for the eradication of this weed have been commenced in Coorg, where during the past two years 4,408 acres have been cleared and 1,241 acres cleared of regrowth, at a cost of Rs. 39,134. A scheme for the systematic eradication of *lantana* has also been prepared, and the plant has been the subject of special legislation in the shape of the Coorg Noxious Weeds Regulation of 1914.

Insect pests continue to be studied by the Forest Zoologist, but no measures of control have yet been put into force, although these may possibly become necessary when more intensive sylvicultural operations are undertaken.

Grazing.

8. Forestry in India is closely connected with grazing, the intensity of which varies in different provinces, and as excessive grazing is harmful this question is unfortunately at times the cause of friction between the Forest Department and the people. In the Central Provinces and Berar, the sound policy has been adopted of granting liberal concessions in the case of cattle kept for agricultural purposes, higher fees being levied in other cases. In Madras, the grazing question became so acute that a special Forest Committee was appointed in 1912 to consider and report on this and kindred matters. The Committee recommended that forests in which scientific working and control are essential should be classified separately from those maintained primarily for the supply of village requirements and grazing, and that the

latter should be placed under the control of village panchayats or local committees. Effect is now being given to this recommendation and it is hoped that the measures adopted will result in smoother working. In excluding goats from reserved forests, so far as possible, the Madras Government have adopted a policy which the Government of India desire to commend to the consideration of the Governments of those provinces where this destructive form of grazing is permitted.

Afforestation.

9. The afforestation of denuded hill-sides and ravine lands has received some attention during the past few years, particularly in the Punjab and the United Provinces.

The Government of the United Provinces in 1912 announced a definite policy of afforestation which provided for the reclamation of ravine lands and the formation of fuel and fodder reserves in the drier tracts of the plains, and to give effect to this policy an Afforestation Division has been constituted. A systematic survey of waste lands has been started in the Jhansi, Hamirpur, Jalaun and Etawah districts, and the work of reclamation and afforestation has already been taken in hand. These measures, which affect so closely the well-being of the agricultural population, may have far-reaching results, and their progress will be watched with interest.

Plantations.

10. Plantation work continues to progress in many provinces. In the Andamans mangrove plantations for the supply of fuel extend over 685 acres, while Para rubber plantations now aggregate 191½ acres. Some 550 trees planted in 1906 were tapped in 1913-14 and a sample of 158 lbs. of rubber was sent to London for sale where it realized Rs. 1-9-0 per lb. *Padauk* sowings on areas clear felled for the supply of fuel to the Settlement now cover 1,300 acres, while teak plantations, though of small extent, show considerable promise.

In Assam, rubber plantations have now been in existence for many years and are still being extended, but seeing that the selling price of *Ficus elastica* is low it would appear desirable carefully to examine financial results before further extensions are carried out.

In the Punjab, excellent progress has been made with the scheme for the formation of irrigated plantations for the supply of fuel in the Canal Colonies. These plantations when complete will cover 50,000 acres.

In Burma, satisfactory progress has been made in the extension of teak *taungya* plantations. Doubts have been expressed as to the wisdom of extending these plantations, on the ground that the staff and labour necessary for their upkeep is insufficient, but although it may be admitted that plantations which cannot receive adequate attention are of little value, the fact remains that these plantations have demonstrated that teak can be successfully grown in this way. As the demand for teak is considerably in excess of the supply, every effort should be made to increase the outturn of this valuable timber, and the extension of teak plantations in Burma should therefore be continued. Many of the difficulties of control now experienced are due to the fact that small plantations are scattered over wide areas and the marked success which has been obtained in the Nilambur plantations in South Malabar shews what can be done when a well-considered scheme is carried out.

Forest Management.

General.

11. Under the general declaration of policy made by the Government of India in 1894, the forests of India were broadly classed into (*a*) Forests the preservation of which is essential on climatic or physical grounds, (*b*) Forests which afford a supply of valuable timbers for commercial purposes, (*c*) Minor forests and (*d*) Pasture lands. The system of management depends upon the objects in view and necessarily varies with the class of the forest, so that while in classes (*a*), (*c*) and (*d*) simple rules are ordinarily sufficient, special treatment on scientific and economic lines is necessary in forests of the second class. The management of such forests requires carefully prepared working plans and as without such plans systematic management is impossible, their preparation becomes a matter of vital importance.

Working plans.

The progress made in the preparation of working plans during the past 25 years is shewn in the following statement:—

Period ending 30th June.	Area under working plans at end of last year of period.	Progress during the quinquennium.
	Square miles.	Square miles.
1889	912	...
1894	10,279	9,367
1899	21,620	11,341
1904	34,222	12,602
1909	48,104	13,882
1914	53,926	5,822

The progress made in the preparation of new working plans during the past five years is disappointing. It is true that existing plans have also to some extent been revised but the amount of revision work carried out does not account for the short outturn. Nor is it the case that plans have been compiled for the greater portion of the area for which they are required, since at the end of the year 1913-14 plans had only been prepared for 53,926 square miles out of 86,358 square miles for which they were required. Leaving out of account revision work, it may be said that in the United Provinces, Punjab and Bihar and Orissa plans have been prepared for the greater part of the forests for which they are required; this work is well advanced in the Central Provinces; less advanced in Bengal and Bombay; and backward in Burma, Assam and Madras. In the latter provinces maps of the forests are not in all cases available; but the main cause of the present state of affairs is the inadequacy of the trained staff and unless the staff is strengthened this difficulty will become more acute with the development of forest operations and the necessity for more intensive working, with the constant demands for revisions of existing working plans and, in provinces in which new reserves are being formed, with the increased demand for new plans. Apart from this, many of the areas which at present do not require plans will, as communications improve and new demands spring up, have to be brought under scientific management.

The Government of India desire to impress on Local Governments and Administrations the great importance of compiling plans with as little delay as possible for all areas for which they are required and they trust that in the next five years more substantial progress will be made. They recognise that without an adequate staff this cannot be done, but in recent reorganizations of provincial cadres provision has been made for special working plans officers and the necessity for this should not be overlooked when additions to the staff are considered.

12. The following statement shows the areas and percentages under various methods of treatment in provinces other than Bombay and Madras:—

Systems of management.

Method of treatment.	Area in square miles.		Percentage of total area under each method of treatment.	
	1909-10.	1913-14.	1909-10.	1913-14.
System of clear fellings by compartments ...	5	14	·014	·036
Uniform system	184	150	·523	·387
Group system	1	95	·003	·245
Selection method with improvement fellings ...	11,700	15,802	33·228	40·759
Simple coppice	124	161	·352	·415
Coppice with standards	2,909	3,234½	8·262	8·342
Method of Improvement fellings	7,898	(c) 8,880	22 430	22·905
Unallotted	(a) 12,390	(a) 10,432½	35·188	26·911
Total ...	(b) 35,211	38,769	100·000	100·000

(a) Includes forests for which working plans have been prepared but which are not under any definite system of working.
(b) Includes 14 square miles of reserves in Bengal which are not under the control of the Forest Department.
(c) Excludes 4 square miles worked experimentally in the Northern Circle, Central Provinces.

There has been no marked increase in the area under high forest systems involving concentrated fellings. Nevertheless, in recent years the tendency has been to break away from the provisional methods of treatment known in India as selection or improvement fellings, in which measures for securing adequate regeneration are too often neglected, and to adopt more rational systems of management based on the sylvicultural requirements of the species and the regeneration of the normal area. This tendency is most marked in the United Provinces and the Punjab, where several working plans on improved lines are now under preparation. In Burma, a system of working the teak forests by regenerative measures concentrated over definite areas was discussed at a Conference held in 1910, but so far little appears to have been done to give effect to the recommendation that in certain areas these improved methods should replace the method of selection fellings.

The substitution of improved systems of management for the provisional methods which have hitherto been followed is of great importance. The Government of India recognise that this can only gradually be brought about and that in many localities provisional methods must be continued for some time to come, but as experience is gained of the sylvicultural requirements of the species and of the best methods of treatment, more advanced systems of management will, it is hoped, be adopted.

Exploitation and Commercial Development.

13. The successful working of the forests must depend largely upon the extent to which facilities for extraction are provided and a satisfactory feature of forest administration during the past five years has been the substantial amount spent upon this object. Numerous forest roads have been constructed, the use of tramways and ropeways has been extended and a great deal done in the erection of quarters for the subordinate staff and rest-houses for inspecting officers. On these objects seventy-five lakhs of rupees were spent during the quinquennium compared with about 53½ lakhs during the five years ending 1909. The use of mechanical transport in the extraction of forest produce is becoming more important each year and this question was considered by the Board of Forestry in 1913. The conclusion arrived at was that under Indian conditions monorails and road trains had not so far proved satisfactory, but that there was much scope for narrow-guage forest tramways and that experiments should be made with any other means of mechanical transport likely to cheapen extraction. Tramways are in use in the Andamans, in the Goalpara Division of Assam, in the Chakrata Division of the United Provinces, and in Burma, and in all cases considerable economy in transport has been effected, while an important scheme for the construction of a steam tramway in the Ramnagar and Lansdowne Divisions of the United Provinces is now being considered. In Burma, skidders are being successfully used to extract logs from the forests and from river beds. Another important work of this class in that province is the Wegyi boom which is designed to catch logs while the stream is in high flood, the logs being then conveyed to the railway by the help of slipways, gantries, winches and short lengths of tramline. The installation has cost Rs. 2,26,027, and although on the whole it has worked well, many difficulties have been experienced and it is doubtful whether it will be permanently maintained in its present form.

Communications and buildings.

To provide the necessary expert advice a Forest Engineer was appointed in 1913 for two years, and he has been engaged on various projects in the United Provinces, the Andamans and Burma. But with the inevitable extension in the use of mechanical appliances for extraction and transport one Engineer for the whole of India will be insufficient and there can be little doubt that in course of time the major provinces will require special Engineers of their own.

14. The question of the agency by which forest produce should be extracted has given rise to considerable discussion in the past and although certain general principles may be laid down, the form of agency most suitable to any particular province or area must necessarily depend upon local conditions.

Agency of extraction.

In forest administration the object in view is two-fold—first, to conserve and improve the forests, and this is the first concern of the trained staff, and

secondly, to secure to the tax-payer the greatest immediate benefit from their commercial working. To obtain the best commercial results departmental or private agency should be employed as circumstances dictate and provided always that Government receives a fair share of the profits earned private agency should be freely employed. But when this is done the term of the contract should on the one hand be sufficiently long to enable the initial outlay to be recovered, while on the other hand provision should invariably be made for a revision of the rates of royalty at stated intervals so that Government may not be deprived of its fair share of any rise in prices which may take place. Should it be found impossible to employ private agency on these terms, departmental working should be adopted and if this cannot be undertaken by the trained staff without prejudice to its work of conservation and improvement, there seems to be no reason why a separate staff specially trained in commercial exploitation should not be employed. At times, indeed, departmental working is essential as, for instance, in the extraction of little known timbers or other products for which it is desired to create a market, when for any reason the system of extraction by purchasers breaks down, or when it becomes necessary to prevent trade manipulation or the creation of a monopoly.

Having regard to these general principles, which in their opinion should govern the decision as to the form of agency to be employed, the Government of India are inclined to believe that in some parts of India departmental agency might perhaps be profitably employed more extensively than at present.

Commercial development.

15. In recent years there has been a noticeable increase in the demand for forest products and several industries dependent on their supply have been or are about to be started. One of the most important of these is the utilization of bamboos, savannah grasses and firwood for the manufacture of paper-pulp, and to assist the development of this industry a special expert has been employed. With the assistance of the Titaghur Paper Mills Company, Limited, trials in the manufacture of bamboo pulp have been carried out successfully on a commercial scale, and concessions for the extraction of bamboos have been granted to two firms in Burma and Bengal. The outbreak of war has delayed the commencement of manufacture but as large supplies of the raw material are available the outlook is distinctly promising. In the Punjab, a concession for the extraction of spruce and silver fir from the Kulu forests for the manufacture of wood pulp has been granted. Matters are less advanced as regards the grass pulp industry, but this is being seriously considered. In the United Provinces and Assam, enormous quantities of suitable grasses are available and if trials on a commercial scale be successful an important industry may be established.

The extraction of tanning materials has received attention for some time past, particularly in the matter of obtaining a satisfactory extract from the bark of mangroves. For this purpose a factory was established several years ago at Rangoon, but owing to the want of expert supervision was not very successful. In order to test the possibility of producing extracts of good quality on a commercial scale the services of a Tannin Expert have been obtained and he will probably reach India shortly bringing with him a small portable plant. The forests of India contain many valuable tanning materials other than mangrove bark. The possibility of utilizing these will be examined by the Expert and his appointment may result in the establishment of a new and important industry.

During recent years much has been done to stimulate the local manufacture of matches, tests with numerous Indian woods have been carried out and a report regarding their suitability and the prospects of this industry has been issued. Several match factories on modern lines have been established, and if a sufficient supply of match woods of good quality can be assured, there is no reason why the industry should not grow rapidly. The regular and cheap supply of suitable wood is, however, a real difficulty, and the establishment of special plantations is a matter deserving the attention of Local Governments.

The tea-box industry has received special attention in Assam, where it absorbs a considerable portion of the outturn of the forests, and has steadily grown, especially in the Assam Valley. The Local Administration has fostered the industry by remissions of royalty on tea-box wood, by devising

measures for the protection of timbers used for tea-boxes, and by forming experimental plantations of *simal.*

Large quantities of sleepers have always been obtained by the Indian railways from the forests in this country, but as the supply of first class sleeper woods such as *sâl* and *deodar* is limited, experiments in the antiseptic treatment of less durable timbers have been in progress for some years past. The Indian forests contain many timbers which, so far as structural qualities are concerned, are at least the equal of imported sleeper woods, and these, if treated antiseptically, should go far to meet the demands of the Indian railways. The best and most economical method of treatment has not yet been determined but experiments are being carried out. Arrangements, however, have already been made with the Railway Board for the delivery of a large number of treated *chir* pine sleepers from the forests of the United Provinces while a similar supply of *Gurjan* sleepers from the Andamans is under consideration.

Another important forest industry in which, under departmental management, marked progress has been made is the manufacture of rosin and turpentine from crude resin obtained by tapping pine trees in the Himalayan forests. In the Punjab and the United Provinces, new distilleries have been erected and in 1913-14 these turned out 27,429 maunds of rosin and 58,803 gallons of turpentine compared with 6,584 maunds of rosin and 14,604 gallons of turpentine ten years earlier. The Indian demand for these products, which are largely used in the manufacture of paper, paints and varnishes, is considerable and the local outturn has already affected imports from other countries. In the Punjab, a modern plant has been erected near Lahore and a large increase in the outturn is also expected in the United Provinces. It is not too much to expect that a considerable portion of the Indian demand for rosin and turpentine will soon be met by the Department.

This account of the improved methods of extraction now adopted and of the new industries which have been started is sufficient evidence that the officers of the Department are fully alive to the importance of the commercial development of the forests and that they now recognise that efforts to secure commercial success are as much a part of their duties as the scientific management of the forest property entrusted to their care.

Grass operations.

16. In times of famine or fodder scarcity grass operations form an important part of the work of the Forest Department, especially in Bombay, the Central Provinces, the United Provinces and Madras. In the past few years very large quantities of grass have been sent from the forests of the two first named provinces to the Deccan districts of Bombay, and in 1911-12 famine areas in Gujerat were supplied with grass from the United Provinces. In the famine of 1913-14 the serious shortage of fodder in the affected areas of the United Provinces was made good from the local forests and from the Central Provinces.

Financial Results.

17. The following statement shows the growth of forest revenue and expenditure during the past 50 years, the figures in all cases being the annual averages of the quinquennial periods. Further details will be found in the statements appended to this review :—

Financial Results of Forest Administration in British India from 1864-65 to 1913-14 (in lakhs of rupees).

Quinquennial period.	Gross revenue (average per annum).	Expenditure (average per annum).	Surplus (average per annum).	Percentage of surplus to gross revenue.
	Lakhs.	Lakhs	Lakhs.	Lakhs.
1864-65 to 1868-69	37·4	23·8	13·6	36·4
1869-70 to 1873-74	56·3	39·3	17·0	30·2
1874-75 to 1878-79	66·6	45·8	20·8	31·2
1879-80 to 1883-84	88·2	56·1	32·1	36·4
1884-85 to 1888-89	116·7	74·3	42·4	36·3
1889-90 to 1893-94	159·5	86·0	73·5	46·1
1894-95 to 1898-99	177·2	98·0	79·2	44·7
1899-1900 to 1903-04	196·6	112·7	83·9	42·7
1904-05 to 1908-09	257·0	141·0	116·0	45·1
1909-10 to 1913-14	296·0	163·7	132·3	44·7

Progress has been continuous and it is a striking fact that within 50 years the surplus has increased nearly ten-fold. Even allowing for the rise in the prices of forest produce this is highly satisfactory, and it is to be remembered not only that a substantial portion of the annual expenditure is absorbed by the cost of research and of sylvicultural work for which no immediate return can be expected, but also that all capital expenditure is met from revenue. There is, too, the fact that each year large quantities of forest produce are given free or removed by right-holders. The average annual value of the produce so removed is over 62 lakhs of rupees, but this is a rough estimate only and does not represent the amount which would have been realized had the produce been sold.

Both in 1912-13 and in 1913-14, the surplus was over a million pounds sterling, and it may be anticipated with some confidence that in the near future this figure will be exceeded. With the steady protection of past years the value of the forest property has increased; with the construction of new roads and the adoption of mechanical means of transport extraction is being extended and cheapened; new and profitable industries are springing up; and with the adoption of more concentrated systems of management an increased outturn will be obtained.

Prior to the 1st April 1911 forest revenue and expenditure in the major provinces were shared equally between Imperial and Provincial, but in the minor provinces were wholly Imperial. In consequence of the recommendations made by the Royal Commission upon Decentralization, the terms of provincial settlements were altered with effect from the date mentioned, and revenue and expenditure were in the major provinces wholly provincialized. In the North-West Frontier Province, forest revenue is Provincial while the expenditure is half Imperial and half Provincial. In the other minor provinces (Coorg, Ajmer, Baluchistan and the Andamans) both revenue and expenditure are Imperial.

Research.

General.

18. The Forest Research Institute at Dehra Dun was established in 1906, but for several years work was hampered by want of accommodation. The new buildings were completed in 1914 at a cost of over two and a quarter lakhs of rupees and consist of a main block containing museums and offices and a number of subsidiary buildings, chiefly laboratories.

The Institute, which is under the administrative control of the Inspector General of Forests, is in charge of the President, Mr. L. Mercer, C. I. E., and contains five main sections each in charge of a research officer, the branches of work being sylviculture, forest botany, economic products, zoology and chemistry.

Sylviculture.

19. The work of the Sylviculturist comprises a study of the requirements of the more important trees, the collection of statistics relating to the rate of growth of trees and the volume production of typical crops, as well as investigations regarding improved systems of management. The *sâl* (*Shorea robusta*) and the *chir* (*Pinus longifolia*) are the principal species which have been studied, and a monograph on the latter is now in the Press, while the question of *sâl* regeneration is being studied in most of the important *sâl* tracts of India. In addition the Sylviculturist is associated with local officers in the preparation of working plans on improved lines and has carried out many other investigations. Among the subjects dealt with may be mentioned experiments to ascertain the best rotation on which to work bamboos, the collection of statistics in the eucalyptus plantations of the Nilgiris, the causes and effects of the drought of 1907 and 1908 in the *sâl* forests of the United Provinces and the results of continued fire-protection on the regeneration of *sâl* in the forests of the Duars. Statistical work, which in connection with sylviculture has an important bearing on the future management of the forests to the best advantage, was taken up systematically in 1910-11. The results cannot be fully apparent for some time to come, but the value of the work is being realized in India, and in several provinces the need for special officers has been felt. In Burma, one such officer is already employed on this work; in the United Provinces, a post of Sylviculturist has been sanctioned; and in Assam and Bihar and Orissa, a similar proposal is under consideration.

A beginning has been made in the formation of a sylvicultural museum worthy of the Research Institute. The photographic branch of the Research Institute is in charge of the Sylviculturist, and large additions to the collection have been made during the past few years.

Forest Botany.

20. The work of the Forest Botanist comprises systematic botany, the study of forest grasses, the oecology of important species and the diseases of trees. Under the head of systematic botany the work done has included the special study of important genera, the identification of specimens for forest officers, the measures taken for the preparation of descriptive lists and local floras and the upkeep of the Dehra Dun herbarium. Complete floras scientifically compiled are desirable, but for the present simple descriptive lists which will enable forest officers to identify trees and shrubs not by minute botanical features but by easily recognised field characters are all that is necessary. A scheme for their preparation on these lines was approved by the Board of Forestry in 1913 and the work is in progress in most provinces.

The herbarium has grown considerably, partly by the incorporation of the valuable Saharanpur collection in 1908 and partly by the accumulation of new specimens. In this connection mention may be made of two new species (*Albizzia Lathamii* and *Spodiopogon Lacei*) which have been discovered and named after two officers of the Department. Special attention has been paid to forest grasses, as it is desirable not only to increase the commercial exploitation of the valuable kinds but also to afforest the extensive and less valuable grass tracts. It has been shewn that fifteen widely distributed species can be utilized for the manufacture of paper pulp.

In oecological work attention has been mainly devoted to the study of the *sál* tree, with special reference to the cause of the dying back of seedlings, while in connection with diseases the most important work of the Botanist has been the study of the disease of *Pinus excelsa* caused by the fungus *Trametes Pini*.

Economic Products.

21. The activities of the Forest Economist have covered a very wide field. An enquiry into the properties and uses of *sál* timber has been completed with the exception of the portion dealing with tests of strength. The antiseptic treatment of Indian timbers is being investigated and in connection with the utilization of bamboos for the manufacture of paper pulp, to which reference has already been made, a report on the supplies available and on local conditions has been issued.

The utilization of Indian timbers for industrial purposes has received attention and the suitability of woods for such purposes as matches, pencils, cement blocks, paving blocks, railway wagons, etc., has been studied. Among minor products, inquiries were carried out in connection with tan barks, gums, resins, oleo-resins, oil seeds, oil grasses and fibres.

The museum of forest economic products, which was started in 1881 by Sir Dietrich Brandis, has been steadily enlarged and is now housed in the new Institute at Dehra Dun.

Forest Zoology.

22. During the past five years the post of Forest Zoologist has been held by four officers, and work has in consequence suffered, but recently progress has been good. The pests of *sál*, teak, and *Pinus longifolia* have been investigated, over 120 life histories having been studied in connection with these trees alone.

A study of the teak bee-hole borer, *Duomitus ceramicus*, Walk, was commenced in Burma, and other borers have also been identified, some of which are likely to prove of importance. A special study of the lac insect and of the parasites of *Butea* lac has been in progress, and a revision of the life history of *Tachardia lacca* will shortly be published by Dr. Imms. The entomological collection has rapidly increased, and over four thousand species have been added during the past few years.

23. The Chemical Adviser works in close touch with other research officers, especially with the Forest Economist. Among the chief investigations taken up may be mentioned the determination of tannin values of barks and other products, the distillation of oil from oil grasses, from pine needles and from *deodar* waste, the extraction of saleable products from the gum resin of *Boswellia serrata* and the improvement and standardization of Indian turpentine and rosin.

Forest Chemistry.

24. A list of publications issued by the Forest Research Institute during the period 1909-10 to 1913-14 is given in appended Statement XX.

Forest literature.

25. An enquiry into the effect of forests on the retention of atmospheric and soil moisture has been carried out. A large mass of evidence was collected and the conclusions arrived at, briefly summarized, were as follows:—So far as India is concerned, sufficient data are not available to enable any definite opinion to be formed regarding the influence of forests on the actual rainfall, but the denudation of the soil resulting from the destruction of forest vegetation may be looked on as an established fact. As regards the effect of forest preservation on the run-off of rain water and the underground water supply, sufficient evidence is not forthcoming to justify any change in the principles on which the forest policy of Government has hitherto been based. At the same time, useful results might be obtained if meteorological stations were established where local differences in the rainfall, temperature and humidity inside and outside forest areas would be recorded. It is also important that adequate measures, where necessary, should be taken to prevent the destruction of forests on areas liable to denudation.

Relation between forests and the retention of atmospheric and soil moisture.

L. J. KERSHAW,
Secretary to the Government of India.

157RAD—1,000—3-8-15—GCBP Simla

ANNUAL RETURN

OF

STATISTICS

RELATING TO

FOREST ADMINISTRATION

IN

BRITISH INDIA.

1913-14.

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1. Area under the control of the Forest Department compared with the total area of British India.
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MAPS.

1. Map of India showing distribution of forest lands.
2. Map of India showing progress of Forest Surveys and Working-Plans.

STATEMENT I.

Area of Forests under the control of the Forest Department.

Province. Name. (1)	Area in square miles. (2)	Forest area in square miles. Reserved. (3)	Protected. (4)	Unclassed State. (5)	Total. (6)	Percentage of forests to whole area of Province. (7)	Remarks. (8)
Bengal	78,875	(a) 4,871	(b) 1,711	4,030	10,612	13·5	(a) Excludes 17 square miles of reserved forest not under the management of the Forest Department.
United Provinces ..	106,773	(c) 4,121	(d) 33	(e) 39	4,193	3·9	(b) Excludes 54 square miles not under the control of the Forest Department.
Punjab	96,650	(f) 2,165	(g) 5,203	946	8,314	8·6	(c) Includes 160 square miles of leased forests, of which 4 square miles have recently been afforested.
Burma (including Shan States).	224,854*	27,332	..	114,111	141,443	62·9	
Bihar and Orissa ..	83,073	1,727	(l) 1,058	..	2,785	3·4	(d) Excludes 9,065 square miles of district forests not under the control of the Forest Department.
Assam	48,915	4,381	..	18,401	22,782	46·6	(e) Includes 10 square miles recently afforested.
Central Provinces (including Berar).	99,876	(l) 19,684	..	..	19,684	19·7	(f) Includes 366 square miles of leased forests, but excludes 110 square miles of reserved forests not under the control of the Forest Department.
Coorg	1,582	520	..	..	520	32·9	
North-West Frontier Province.	13,184	(i) 236	(j)	..	236	1·8	(g) Excludes 20 square miles not under the control of the Forest Department.
Ajmer	2,767	142	(m)	..	142	5·1	(h) Excludes 1,013 square miles of other protected forests not under the management of the Forest Department.
Baluchistan (portions under British Administration).	54,228	313	..	472	785	1·4	(i) Excludes 14 square miles of military and civil reserved forests.
Andamans and Nicobars	3,143	85	..	2,124	2,209	70·3	(j) 121 square miles of civil protected forests are not shown.
Madras	142,402	18,863	..	(k) 802	19,665	13·8	(k) Reserved lands.
Bombay (including Sind)	123,316	(n) 11,857	(o) 385	..	12,242	9·9	(l) Excludes 20 square miles not under the control of the Forest Department.
Total 1913-14 ..	1,079,638*	96,297	8,390	140,925	245,612	22·7	(m) There are only 115 acres of protected forests in Ajmer.
„ 1912-13 ..	1,079,163*	96,867	8,492	133,564	238,923	22·1	(n) Includes 331 square miles of leased forests and excludes 2,120 square miles of the forest in charge of the Revenue Department.
„ 1911-12 ..	1,071,051*	96,148	8,496	138,316	242,960	22·7	
„ 1910-11 ..	1,071,010*	96,387	8,507	138,584	243,478	22·7	(o) Includes 325 square miles of leased forests and excludes 548 square miles of protected forests in the charge of the Revenue Department.
„ 1909-10 ..	1,042,718*	96,474	8,814	140,263	245,551	23·5	

* The area of the Shan States, 54,728 square miles, is here included for the first time : the forests of these States are under the control of the Forest Department.

STATE

Progress in

Province.	Area already settled at the commencement of the year.			Areas finally settled during the year.					
				Area.			Expenditure incurred.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
Bengal	4,888	..	4,888	..	..	..	..	..	..
United Provinces..	3,961	30	3,991	..	..	..	..	..	..
Punjab	1,948	5,221	7,169	..	..	..	..	..	..
Burma	27,023	..	27,023	324	..	324	911	..	911
Bihar and Orissa	1,723	..	1,723	4	..	4	..	..	..
Assam	4,381	..	4,381	..	..	..	..	..	..
Central Provinces	23,720	..	23,720	7	..	7	..	..	..
Coorg	..	..	..	..	..	..	..	..	..
North-West Frontier Province.	250	121	371	..	..	..	..	..	..
Ajmer	..	..	..	..	..	..	..	..	..
Baluchistan ..	313	..	313	..	..	..	..	..	..
Andamans ..	85	..	85	..	..	..	..	..	..
Madras	18,577	..	18,577	287	..	287	8,282	..	8,282
Bombay ..	14,024	1,042	15,066	70	..	70	..	..	..
Total 1913-14 ..	100,893	6,414	107,307	692	..	962	9,193	..	9,193
„ 1912-13 ..	97,661	6,088	103,749	986	..	986	7,093	..	7,093
„ 1911-12 ..	97,407	6,090	103,497	310	..	310	19,512	..	19,512
„ 1910-11 ..	90,281	6,281	96,862	843	2	845	11,676	..	11,676
„ 1909-10 ..	90,011	6,162	96,173	2,096	..	2,096	13,601	..	13,601

MENT II.

forest settlements.

AREA UNDERGOING SETTLEMENT.								
At commencement of the year.			Taken in hand during the year.			Expenditure incurred during the year.		
Reserved. (11)	Protected. (12)	Total. (13)	Reserved. (14)	Protected. (15)	Total. (16)	Reserved. (17)	Protected. (18)	Total. (19)
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
4	..	4	22	..	22	61	..	61
3	26	29	2	..	2	..	..	..
31	205	236	..	..	..	10,648	..	10,648
510	..	510	975	..	975	134,753	..	134,753
147	..	147	19	..	19	2,838	..	2,838
182	..	182	107	..	107	11,329	..	11,329
17	..	17	34	..	34	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
16	..	16	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
362	..	362	274	..	274	1,085	..	1,085
70	..	70	1	..	1	..	..	..
1,342	231	1,573	1,434	..	1,434	160,714	..	160,714
1,220	231	1,451	1,025	..	1,025	9,724	..	9,724
1,739	205	1,944	634	248	882	19,149	43,485	62,634
3,436	205	3,641	5,692	..	5,692	17,992	..	17,992
3,322	205	3,527	867	..	867	1,12,971	..	1,12,971

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	119	922	534	1,575	322	1,121	3,018	4,015	9,643
United Provinces ..	42	1,831	2,659	4,532	20	1,552	6,104	19,011	7,969
Punjab	..	1,532	7,829	9,361	34	1,222	10,617	436	2,948
Burma	716	2,244	15,894	18,854	338	2,778	21,970	16,182	20,407
Bihar and Orissa ..	6	3,382	283	3,671	..	263	3,934	376	790
Assam	24	1,491	90	1,605	20	1,724	3,349	606	10,219
Central Provinces ..	110	11,139	21,098	32,347	184	3,369	35,900	1,525	24,224 4
Coorg	..	..	475	475	5	56	536	..	9
North-West Frontier Province.	..	47	730	777	..	136	916	..	447
Ajmer	..	11	232	422	..	158	401	..	211
Baluchistan ..	..	23	437	460	..	77	537	..	4
Andamans ..	..	..	50	50	..	86	136	..	..
Madras	221	18,148	16,085	34,454	789	1,775	37,018	6,965	20,347
Bombay	451	11,201	24,464	36,117	1,473	3,026	40,615	3,063	462
Total 1913-14	1,689	51,971	90,860	144,700	3,185	17,346	165,051	52,179	97,765
„ 1912-13	2,200	53,881	89,557	146,338	4,301	18,025	167,963	51,150	85,687
„ 1911-12	1,923	52,597	90,954	145,473	4,318	18,284	164,593	45,250	92,646
„ 1910-11	1,942	57,929	86,320	146,191	4,393	18,214	168,798	37,636	85,491
„ 1909-10	2,527	64,885	78,490	145,967	6,033	18,063	170,063	35,260	92,129

STATEMENT IV.

Forest survey operations.

PROVINCE.	Forest surveyed.	NATURE OF SURVEY OPERATIONS. 1′ Detail Survey. Area.	1′ Detail Survey. Cost rate.	2′ Detail Survey. Area.	2′ Detail Survey. Cost rate.	4′ Detail Survey. Area	4′ Detail Survey. Cost rate.	Total area of Detail Survey. 1913-1914.	Total area of Detail Survey. Total up to date.	Expenditure of the year including mapping and publishing charges debitable to Forests.	REMARKS.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	3,265	..	(*a*) 63 miles of boundaries have been traversed on a scale of 4″=1 mile.
United Provinces ..	Naini Tal ..	..	..	..	..	..	..	..	4,139	173	
	Ramnagar ..	..	..	..	..	..	..	..		320	
Punjab	..	..	..	..	..	..	..	..	4,365	..	(*b*) 96 miles of boundaries have been traversed on a scale of 4″=1 mile.
Burma ..	Myitkyina	164	37·7	(*a*) 50		..	..	214	15,451	..	(*c*) 171 miles of boundaries have been traversed on a scale of 4″=1 mile.
	Katha ..	..	..	(*b*) 7	37·7	..	..	7			
	Mandalay ..	..	..	(*c*) 35		..	..	35			
	South Tenasserim.	(*d*) 89	56·3	(*d*) 95	56·3	..	..	184			(*d*) 66 miles of boundaries have been traversed on a scale of 4″=1 mile.
Bihar and Orissa ..	Palamau ..	..	..	(*e*) 11	23·9	..	..	11	1,762	..	(*e*) 22 miles of boundaries have been traversed on a scale of 4″=1 mile.
	Santal Parganas.	..	..	(*f*)	..	..	..	..			
Assam ..	Darrang ..	..	..	(*g*) 1			..	1	2,591 (*j*)	17,516	(*f*) 86 miles of boundaries have been traversed on a scale of 4″=1 mile.
	Nowgong ..	(*h*) 40	46·9	(*h*) 33	46·9	..	..	73			(*g*) 5 linear miles of boundaries have been traversed on 4″ scale.
	Sibsagar ..	(*i*) 19		..				19			
	Lakhimpur ..	..	..	(*j*) 20		(*j*) 22	(*k*).	42			(*h*) 7 linear miles of boundaries have been traversed on 4″ scale.
Central Provinces ..	Akola ..	..	..	(*l*) 7	16·2			7	19,432	716	(Excludes revision of 66 square miles.)
	Buldana ..	..	..	(*l*) 139		..	..	139			(*i*) 59 linear miles of boundaries have been traversed on 4″ scale. (Excludes revision of 66 square miles.).
Coorg	..	..	..	..	..	..	..	..	478	..	(*j*) Upper Dehing reserve (western block) specially surveyed for the Forest Department at their cost. 90 linear miles of boundaries of this and the Jaipur reserve have also been traversed on a scale of 4″ = 1 mile.
North-West Frontier Province.	..	..	..	..	..	..	..	..	445	..	
Ajmer	..	..	..	..	..	..	..	..	144	..	
Baluchistan ..	..	..	..	..	..	..	..	..	227	..	
Andamans ..	..	..	..	(*m*) 302	78·5	..	..	302	302	23,692	(*k*) Not forthcoming.
Madras	Salem ..	..	..	24		..	..	24	15,328	..	(*l*) 11 linear miles of boundaries have been traversed on 4″ scale.
	North Arcot	..	..	146	21·5	..	..	146			(*l*) 387 linear miles of boundaries have been traversed on 4″ scale.
	South Arcot	..	..	7		..	..	7			
Bombay	..	..	..	..	..	..	..	..	12,973	..	(*m*) 18 linear miles of theodolite traversing were run.
Total 1913-14..	..	312	..	877	..	22	..	1,211	80,902	(*n*) 42,417	(*n*) Cost of mapping, publishing and special surveys only. Excludes Forest Map Office Head Quarters charges Rs. 39,050
„ 1912-13 ..	..	59	..	793	..	..	..	852	79,691	(*o*) 2,872	(*o*) Excludes Forest Map Office Head Quarters charges Rs. 36,220.
„ 1911-12	..	33	..	873	..	..	..	906	78,839	(*p*) 1,827	(*p*) Excludes Forest Map Office Head Quarters charges Rs. 38,592.
„ 1910-11	..	395	..	446	..	..	..	841	77,933	(*q*) 1,926	(*q*) Excludes Forest Map Office Head Quarters charges Rs. 39,171.
„ 1909-10	..	120	..	1,370	..	..	..	1,490	77,092	(*r*) 5,708	(*r*) Excludes Forest Map Office Head Quarters charges Rs. 41,165.

STATEMENT V.

Progress made in Working-plans.

PROVINCE.	AREAS FOR WHICH WORKING-PLANS HAVE BEEN SANCTIONED BY LOCAL GOVERNMENTS.		AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED.		Areas for which Working-plans have still to be taken in hand.	Areas for which Working-plans are not at present required.	Total forest area as in Appendix I.	Percentage of area under Working-plans to the total forest area.	REMARKS.
	At the commencement of the year.	During the year	At the commencement of the year.	Taken in hand during the year.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.		
Bengal	(a) 4,965	..	..	..	1,610	(b) 4,037	10,612	47	(a) Excludes 17 square miles of other reserves.
United Provinces..	4,077	..	..	..	(c) 93	23	4,193	98	(b) Excludes 54 square miles of other protected forests.
Punjab	(d) 3,969	..	739	..	164	(d) 3,442	8,314	48	(c) Includes 14 square miles of unclassed State and leased forests recently afforested.
Burma	(d) 7,933	..	3,104	5	8,577	(d) 121,824	141,443	6	(d) Revised area.
Bihar and Orissa	1,460	..	..	..	6	(e) 1,319	2,785	52	(e) Excludes 1,013 square miles of other protected forests not under the management of the Forest Department.
Assam	1,134	..	134	..	,853	(f) 19,661	(f) 22,782	5	
Central Provinces	12,102	2,530	2,558	..	309	2,185	19,684	74	(f) Includes 18,401 square miles of unclassed State forests.
Coorg	..	207	..	..	313	..	520	40	
North-West Frontier Province.	236	..	..	..	..	..	236	100	
Ajmer	140	..	..	..	2	..	142	99	
Baluchistan ..	..	..	..	..	313	472	785	..	
Andamans ..	317	..	..	391	85	1,416	2,209	14	
Madras	(d) 7,519	572	1,679	1,798	(d) 6,242	1,855	19,665	41	
Bombay	6,749	16	764	597	1,096	3,020	12,242	55	
Total 1913-14	50,601	3,325	8,978	2,791	20,663	159,254	245,612	22	
,, 1912-13	50,854	868	9,017	3,415	20,102	(g) 154,667	238,923	19	(g) Unclassed forest areas transferred from column (6) to column (7).
,, 1911-12	50,318	574	8,944	2,332	159,188	21,604	242,960	19	
,, 1910-11	49,144	1,039	5,946	4,641	157,067	25,641	243,478	20	
,, 1909-10	48,104	1,317	5,951	2,292	161,679	26,208	245,551	20	

STATEMENT VI.

Expenditure on communications and buildings.

Province.	New Works.		Repairs.		Other Works.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs..	Rs.	Rs.	Rs.	Rs.
Bengal	31,756	17,487	20,297	24,645	6,734	1,00,919 (*a*)
United Provinces.. ..	41,776	31,081	31,895	54,799	13,334	1,72,885
Punjab	(*b*) 51,811	(*b*) 45,285	10,773	7,741	6,075	1,21,685
Burma	87,415	(*b*) 89,657	62,007	47,710	20,292	(*d*) 3,07,081
Bihar and Orissa ..	30,566	23.261	7,653	14,035	2,571	(*c*) 78,086
Assam	52,026	90,338	18,350	22,190	13,978	1,96,882
Central Provinces ..	60,042	96,962	30,624	55,766	13,505	2,56,899
Coorg	7,366	8,811	4,933	2,984	2,203	26,297
North-West Frontier Province.	4,442	5,266	1,096	853	155	11,812
Ajmer	1,172	175	149	285	574	2,355
Baluchistan	36	..	333	..	..	369
Andamans	58	..	671	1,407	1	2,137
Madras	1,21,536	71,646	56,068	58,077	29,111	3,36,438
Bombay	91,605	31,521	16,746	47,381	15,167	2,02,420
Total 1913-14 ..	5,81,607	5,11,490	2,61,595	3,37,873	1,23,700	18,16,265
,, 1912-13 ..	5,78,632	3,43,091	2,43,413	2,89,256	1,34,231	15,88,623
,, 1911-12 ..	4,69,982	3,04,117	2,26,108	2,59,781	1,34,501	13,94,489
,, 1910-11 ..	4,70,257	3,48,784	2,12,482	2,42,365	1,27,048	14,00,936
,, 1909-10 ..	5,37,292	2,45,800	1,92,224	1,93,356	1,31,296	12,99,968

(*a*) This excludes—
(1) Pay of rest house-keepers, Rs. 1,277.
(2) Cost of land acquired, Rs. 1,223.
(*b*) Includes charges not separately shown under "Repairs."
(*c*) Excluding Rs. 441 unallotted under "Roads, etc.'"
(*d*) Excludes an expenditure of Rs. 3,484 on account of the School Division.

STATEMENT VII.

Breaches of forest rules.

PROVINCE.		Cases pending from 1912-13.	NEW CASES OF THE YEAR.					Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
									CONVICTIONS.		ACQUITTALS.		TOTAL.		
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Bengal	A.	20	1	137	75	33	246	266	216	615	29	171	245	786	17
	B.	195	2	792	887	90	1,771	1,966	1,896	3,172	..	..	1,896	3,172	70
	C.	..	36	71	19	28	154	154	..	..	..	..	..	..	..
Total ..		215	39	1,000	981	151	2,171	2,386	2,112	3,787	29	171	2,141	3,958	87
United Provinces ..	A.	14	7	60	43	19	129	143	107	297	19	78	126	375	17
	B.	54	22	1,111	850	66	2,049	2,103	1,877	4,448	63	173	1,940	4,621	163
	C.	1	47	118	15	9	189	190	..	..	..	..	..	..	..
Total ..		69	76	1,289	908	94	2,367	2,436	1,984	4,745	82	251	2,066	4,996	180
Punjab	A.	199	24	471	355	58	908	1,107	778	1,549	105	620	883	2,169	197
	B.	6	18	4,673	6,088	94	10,873	10,879	10,874	15,644	..	..	10,874	15,644	5
	C.	..	97	53	19	1	170	170	..	..	..	..	..	..	..
Total ..		205	139	5,197	6,462	153	11,951	12,156	11,652	17,193	105	620	11,757	17,813	202
Burma	A.	331	9	587	56	180	832	1,163	789	1,595	123	374	912	1,969	211
	B.	340	19	3,035	83	1,220	4,357	4,697	4,091	5,463	34	61	4,125	5,524	483
	C.	..	11	31	3	6	51	51	..	..	..	..	..	..	..
Total ..		671	39	3,653	142	1,406	5,240	5,911	4,880	7,058	157	435	5,037	7,493	694
Bihar and Orissa ..	A.	16	7	85	11	30	133	149	101	285	22	93	123	378	18
	B.	41	5	682	115	70	872	913	870	2,774	8	31	878	2,805	33
	C.	..	76	..	..	..	76	76	..	..	..	..	..	..	..
Total ..		57	88	767	126	100	1,081	1,138	971	3,059	30	124	1,001	3,183	51
Assam	A.	21	2	87	11	62	162	183	125	479	21	94	146	573	37
	B.	20	2	286	59	129	476	496	445	1,220	..	..	445	1,220	51
	C.	..	13	5	..	..	18	18	..	..	..	..	..	..	..
Total ..		41	17	378	70	191	656	697	570	1,699	21	94	591	1,793	88
Central Provinces ..	A.	39	26	82	139	25	272	311	220	680	59	232	279	912	32
	B.	889	73	5,376	6,273	584	12,306	13,195	11,842	33,073	13	16	11,855	33,009	1,340
	C.	..	188	191	22	2	403	403	..	..	..	..	..	..	..
Total ..		928	287	5,649	6,434	611	12,981	13,909	12,062	33,753	72	248	12,134	34,001	1,372
Coorg	A.	4	3	3	8	2	16	20	16	28	1	2	17	30	3
	B.	..	..	4	6	..	10	10	10	..	..	..	10	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		4	3	7	14	2	26	30	26	28	1	2	27	30	3
North-West Frontier Province.	A.	138	..	92	65	4	161	299	210	672	39	158	219	830	38
	B.	..	..	893	790	..	1,683	1,683	1,683	3,063	..	..	1,683	3,063	..
	C.	..	12	22	5	5	44	44	..	..	..	..	..	..	..
Total ..		138	12	1,007	860	9	1,888	2,026	1,893	3,735	39	158	1,902	3,893	38

STATEMENT VII—*contd.*

Breaches of forest rules—contd.

Province.		Cases pending from 1912-13.	NEW CASES OF THE YEAR.					Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer	A.	..	..	8	7	3	18	18	17	26	..	..	17	26	1
	B.	..	2	274	638	..	914	914	906	1,696	5	6	911	1,702	91
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	2	282	645	3	932	932	923	1,722	5	6	928	1,728	92
Baluchistan	A.	3	3	20	6	1	39	42	34	81	2	27	36	108	6
	B.	..	..	13	25	..	38	38	35	66	..	..	35	66	3
	C.	..	4	1	..	..	5	5	..	..	..	..	..	..	..
Total ..		3	7	43	31	1	82	85	69	147	2	27	71	174	9
Andamans	A.	..	..	10	..	..	10	10	6	11	4	5	10	16	16
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	..	10	..	..	10	10	6	11	4	5	10	16	16
Madras	A.	1,668	54	3,969	1,835	404	6,262	7,930	5,916	15,466	485	1,709	6,401	17,175	1,356
	B.	3,570	76	15,532	6,937	1,059	23,604	27,174	21,183	44,152	..	..	21,183	44,152	4,384
	C.	..	1,056	577	261	17	1,911	..	..	..	..	..	..	..	..
Total ..		5,238	1,180	20,078	9,033	1,480	31,177	35,104	27,099	59,618	485	1,709	27,584	61,327	5,740
Bombay	A.	363	149	601	279	80	1,109	1,472	1,064	2,752	112	289	1,176	3,041	295
	B.	1,083	261	8,429	7,920	1,227	17,837	18,920	17,715	34,777	..	..	17,715	34,777	1,204
	C.	37	1,707	2,509	33	33	4,282	4,319	..	..	..	..	4,301	..	13
Total ..		1,483	2,117	11,539	8,232	1,340	23,228	24,711	18,779	37,529	112	289	23,192	37,818	1,512
Grand Total ..	A.	2,816	285	6,221	2,890	901	10,297	13,113	9,599	24,536	1,021	3,852	10,590	28,388	2,244
	B.	6,198	480	41,100	30,671	4,539	76,790	82,988	73,427	149,548	123	287	73,550	149,835	7,827
	C.	38	3,247	3,578	377	101	7,303	5,430	..	..	..	..	4,301	..	13
Total 1913-14 ..		9,052	4,012	50,899	33,938	5,541	94,390	101,531	83,026	174,084	1,144	4,139	88,411	178,223	10,084
„ 1912-13 ..		8,953	3,108	46,501	28,052	5,294	82,940	90,162	74,137	161,925	1,279	4,916	75,416	166,841	9,114
„ 1911-12 ..		7,773	4,182	45,279	27,176	4,753	81,386	89,163	69,220	153,676	1,831	6,126	71,051	154,400	8,859
„ 1910-11 ..		7,632	4,213	38,646	27,306	4,006	74,164	81,796	63,578	140,817	1,290	4,384	64,870	145,202	(*a*) 7,686
„ 1909-10 ..		7,022	4,526	36,529	27,490	3,597	72,142	79,164	61,597	133,396	1,225	4,012	62,822	138,408	(*b*) 7,547

N. B.—A. Cases taken into Court.

B. Cases compounded.

C. Undetected cases.

(*a*) Excludes 7,285 undetected cases and 1,955 cases struck off.

(*b*) Excludes 1,789 cases struck off.

STATEMENT VIII.

Area protected from fire.

Province.	Area in square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected.		Average of past five years to 1912-13.	1913-14.	
Bengal	719	710	14·8	1·5	1·3	
United Provinces	3,210	3,125	77·9	2·3	2·6	
Punjab	1,060	1,050	49·0	1·9	·9	
Burma	4,548	4,397	16·6	3·8	3·3	
Bihar and Orissa	(a) 1,689	(a) 1,681	97·8	(b)	·5	(a) Excludes protected forests under fire protection.
Assam	(c) 1,440	(c) 1,383	32·9	4·6	4·0	
Central Provinces	11,409	11,237	58·0	3·2	1·5	(b) Refers to the old Province of Eastern Bengal and Assam.
Coorg	157	154	30·0	3·7	1·9	
North-West Frontier Province	85	85	36·0	3·1	..	(c) Include partially protected areas.
Ajmer	(a) 141	(a) 141	99·3	0·4	..	
Madras	(c) 15,481	(c) 14,387	82·1	6·9	7·1	
Bombay	10,032	9,634	84·6	5·5	3·9	
Total 1913-14 ..	49,970	47,983	51·9	4·6	4·0	
„ 1912-13 ..	51,659	49,833	53·3	5·2	3·5	
„ 1911-12 ..	51,182	48,333	53·2	5·6	5·5	
„ 1910-11 ..	50,712	48,718	52·6	5·8	3·9	
„ 1909-10 ..	48,510	45,768	50·3	5·6	5·7	

STATEMENT IX.

Causes of forest fires.

PROVINCE.	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the Fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		TOTAL.	
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	9)	(10)	(11)	(12)	(13)
Bengal	1	..	8	1·6	9	2·1	8	4·8	4	..	30	8·5
United Provinces ..	33	13·2	12	11	39	8	11	25·9	36	27·4	131	85·5
Punjab	6	1·1	14	1	81	2·3	30	6	30	1·2	161	11·6
Burma	24	26·8	28	25·8	50	36·7	30	34·3	106	27·9	238	151·5
Bihar and Orissa ..	2	..	3	..	16	4·5	..	..	16	3·7	37	8·2
Assam	..	..	13	6	3	..	1	6·5	5	..	22	12·5
Central Provinces ..	56	22·7	18	11·6	71	54·8	7	2·4	106	81·2	258	172·7
Coorg	1	..	1	..	2	..	10	2·7	..	..	14	2·7
North-West Frontier Province.	..	..	..	..	4	..	8	..	..	..	12	..
Ajmer	1	..	..	..	..	..	..	..	..	..	1	..
Baluchistan	..	..	..	..	6	..	..	..	4	..	10	..
Andamans	..	..	..	..	..	..	..	..	..	..	..	..
Madras	81	26·7	183	353·2	383	128·3	341	214·3	762	396·8	1,750	1,119·3
Bombay	114	57·7	151	15·9	614	96·0	244	62·1	969	185·4	2,092	417·1
Total 1913-14 ..	319	148·2	431	426·1	1,278	332·7	690	359·0	2,038	723·6	4,756	1,989·6
„ 1912-13 ..	227	79·8	409	212·7	870	207·5	606	392·3	1,531	999·4	3,643	1,891·6
„ 1911-12 ..	281	131·5	451	487·5	1,782	833·0	871	536·0	1,524	856·4	4,909	2,844·4
„ 1910-11 ..	260	90·8	480	344·5	1,746	687·4	765	400·7	1,652	681·0	4,903	2,204·4
„ 1909-10 ..	321	152·0	515	564·9	2,102	529·5	652	597·4	1,722	1,320·8	5,312	3,254·9

STATEMENT X.

Area closed and open to grazing.

PROVINCE.	AREA IN SQUARE MILES.						REMARKS.
	CLOSED TO ALL ANIMALS.		CLOSED TO BROWSERS, CAMELS, GOATS AND SHEEP.		OPEN TO ALL ANIMALS.	Total area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	5,755	7	88	63	4,770	(a) 10,683	(a) Includes 17 square miles of other reserves and 54 square miles of other protected forests.
United Provinces ..	2,136	183	650	..	1,224	(b) 4,193	(b) Includes 14 square miles of unclassed State forests recently afforested.
Punjab	515	572	323	24	6,880	8,314	
Burma	21,034	4,649	353	6	115,401	141,443	
Bihar and Orissa ..	1,418	..	651	..	1,729	(c) 3,798	(c) Includes 1,013 square miles of other protected forests not under the management of the Forest Department.
Assam	3,678	..	504	..	18,600	22,782	
Central Provinces ..	3,127	419	10,464	9	5,665	19,684	
Coorg	73	447	..	..	(d)	520	(d) The whole area is closed to browsers.
North-West Frontier Province.	86	..	103	..	47	236	
Ajmer	39	102	..	..	1	142	
Baluchistan	211	2	22	..	550	785	
Andamans	85	..	..	..	2,124	2,209	
Madras	3,242	104	760	3	15,556	(e) 19,665	(e) Of the total area 15,169 square miles were closed to goats only.
Bombay	2,192	214	9,384	331	2,789	(f) 14,910	(f) Includes 2,668 square miles not under the management of the Forest Department.
Total 1913-14 ..	43,591	6,699	23,302	436	175,336	249,364	
„ 1912-13 ..	42,692	7,297	22,713	482	169,345	242,529	
„ 1911-12 ..	41,568	7,660	21,414	561	175,347	246,550	
„ 1910-11 ..	42,692	6,753	21,123	179	126,348	247,095	
„ 1909-10 ..	43,205	6,693	20,015	195	178,517	248,625	

STATE

Protection

PROVINCE.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.									
	AT FULL RATES.					AT PRIVILEGED RATES.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	11
Bengal	2,572	1,939	430	..	36	152	116,996	49	..	27
United Provinces ..	65,574	181,057	70,841	3,807	7,219	33,786	138,779	38,272	..	685
Punjab	27,062	57,817	312,589	9,477	1,255	106	7,734	259,263	..	31
Burma	5,798	16,889	2,067	..	168	35	35	..	..	..
Bihar and Orissa ..	10,671	37,611	5,239	..	60	9,007	136,559	14,668	..	..
Assam	67,566	21,586	96	..	671	613	37	..	..	..
Central Provinces ..	441,935	1,547,855	643,348	180	8,323	14,203	1,086,824	456	..	..
Coorg	317	2,404	..	..	..	..	..	..	..	..
North-West Frontier Province.	2,311	1,985	424	..	113	..	..	..	..	..
Ajmer	813	5,555	..	4	..	5,262	27,527	..	..	3
Baluchistan	372	2,539	5,071	16	29	..	..	..	..	..
Madras	117,606	1,105,678 (a)	1,661,349	..	16	13,954	82,464	31,775	..	17,255
Bombay	19,698	100,629	35,359	869	2,993	162,173	1,225,629 (a)	113,586	..	2,490
Total 1913-14 ..	762,295	3,083,544	2,736,813	14,353	20,883	239,291	2,822,584	458,069	..	20,491
„ 1912-13 ..	696,074	2,875,482	1,515,205	12,185	22,998	347,069	3,844,768	1,921,392	..	3,364
„ 1911-12 ..	745,400	3,219,481	2,344,142	14,887	25,429	309,607	3,134,478	592,331	4	14,956
„ 1910-11 ..	715,773	2,987,791	2,466,844	17,796	23,411	249,155	2,797,571	579,293	6	4,511
„ 1909-10 ..	729,893	3,603,674	2,760,872	13,374	21,702	148,827	1,807,268	576,177	59	3,518

(a) Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
By right under settlement.					During pleasure of Government or otherwise than under Settlement.				
Buffaloes. (12)	Cows and bullocks. (13)	Goats and sheep. (14)	Camels. (15)	Other animals. (16)	Buffaloes. (17)	Cows and bullocks. (18)	Goats and sheep. (19)	Camels. (20)	Other animals. (21)
..	..	..	..	..	191	3,043	..	..	1
21,845	119,493	40,750	..	1,605	3,552	18,102	1,335	..	73
137,650	645,507	1,314,791	307	180,537	109	8,022	120	2,912	49
42,309	232,548	13	..	28	2,265	1,170	..	..	2,641
30,866	82,734	21,000	..	..	45	80	..	..	..
..	60	..	..	..	66,352	396,510	82,031	..	625
..	365	..	..	..	3,057	209,786	252	..	33
..	487	..	..	..	..	..	..	..	..
6,973	9,753	..	..	..	5,971	10,433	..	..	461
..	..	..	..	..	148	940	..	..	..
..	3,310	53,226	1	1,193	..	..	..	..	..
159	2,552	5,271	..	..	6,507	53,400	424	..	..
3,586	11,479	..	2	82	87,404	(a) 356,458	4,567	1,171	4,329
243,388	1,108,288	1,435,051	310	183,445	175,601	1,057,944	88,729	4,083	8,212
264,744	1,216,629	1,464,902	310	183,344	152,684	1,051,168	89,651	3,554	9.075
272,550	131,860	1,439,407	308	183,481	219,129	1,237,379	85,157	2,289	7,325
246,675	1,106,321	1,404,539	310	183,176	151,658	957,507	84,121	10,948	5,041
245,007	1,095,949	1,054,986	310	182,777	162,256	977,392	84,358	7,881	5,265

STATEMENT XII.

Area of plantations and the cost of the year's work.

PROVINCE.	AREA IN ACRES AT CLOSE OF THE YEAR.			Cost of operations during the year.
	Regular plantations.	Taungyas.	Total.	
(1)	(2)	(3)	(4)	(5)
				Rs.
Bengal	(*b*) 1,267	225	1,492	1,208
United Provinces	6,470	..	6,470	10,709
Punjab	(*a*) 1,115	..	1,115	24,357
Burma	(*h*) 3,361	(*i*) 76,142	79,503	33,121
Bihar and Orissa	909	..	909	2,115
Assam	3,316	51	3,367	5,184
Central Provinces	(*c*) 647	(*d*) 6,328	6,975	549
Coorg	2,072	2,179	4,251	2,438
North-West Frontier Province	..	..	..	..
Ajmer	182	..	182	22
Baluchistan	46	..	46	1
Andamans	1,018	..	1,018	13,697
Madras	(*e*) 27,544	(*f*) 2,905	30,449	67,181
Bombay	(*g*) 7,808	..	7,808	24,255
Total 1913-14 ..	55,755	87,830	143,585	1,84,837
„ 1912-13 ..	55,143	85,636	140,779	2,31,754
„ 1911-12 ..	60,634	87,983	148,617	2,25,850
„ 1910-11 ..	59,092	87,089	146,181	2,64,725
„ 1909-10 ..	62,078	84,721	146,799	2,76,920

(*a*) 85 acres excluded during the year.
(*b*) 1 acre excluded during the year.
(*c*) 178 acres excluded during the year.
(*d*) 162 acres excluded during the year.
(*e*) 2,312 acres excluded during the year.
(*f*) 97 acres excluded during the year.
(*g*) 60 acres excluded during the year.
(*h*) 30 acres excluded during the year.
(*i*) 325 acres excluded during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile.							
									Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal	23,308,510	3,05,963	380,221	20,459	1,747,313	27,552	25,436,044	3,53,974	4,785	63	222	12	434	7	2,397	33
United Provinces ..	15,661,523	8,74,163	413,270	3,784	54,699	11,002	16,129,492	8,88,949	3,800	212	12,523	115	2,188	440	3,860	213
Punjab	10,594,415	11,03,611	10,030,661	11,00,017	1,845,765	53,492	22,470,841	23,47,120	4,893	510	1,928	229	1,951	57	2,703	282
Burma	15,554,388	4,08,075	..	..	54,392,301	4,45,830	69,946,689	8,53,905	569	15	..	..	477	4	495	6
Bihar and Orissa ..	2,926,878	94,333	14,571,701	1,39,078	53,656	10	17,552,235	2,33,421	1,695	55	13,773	131	..	..	6,302	84
Assam	2,076,727	62,856	..	..	12,186,408	6,36,072	14,263,135	6,99,828	474	14	..	..	662	35	626	31
Central Provinces ..	46,534,731	22,34,811	..	..	..	..	46,534,731	2,34 ,811	2,364	114	..	..	..	..	2,364	114
Coorg	368,645	25,259	197,400	125	..	..	561,045	25,384	699	49	..	..	..	..	1,079	49
North-West Frontier Province.	(a) 4,674,153	36,881	..	..	..	..	4,674,153	36,881	19,806	156	..	..	..	..	19,806	156
Ajmer	458,442	23,768	..	69	..	..	458,442	23,837	3,228	167	..	..	..	..	3,228	168
Baluchistan ..	31,667	43,533	..	..	184,675	84	216,342	43,617	101	139	..	..	301	..	276	56
Andamans ..	586,510	2,556	..	..	1,235,045	2,601	1,821,555	5,157	6,900	30	..	..	581	1	825	2
Madras	18,232,867	18,11,689	..	..	10,268,406	(b) 56,743	28,501,273	18,68,432	967	96	..	..	12,803	71	1,449	95
Bombay	44,983,947	11,83,589	1,036,204	..	57,195	..	46,077,346	11,83,589	3,794	100	269	..	..	..	3,764	97
Total 1913-14	185,988,403	82,11,087	26,629,457	13,53,532	82,025,463	12,34,286	294,643,323	1,07,98,905	1,931	85	3,174	161	582	9	1,200	44
„ 1912-13	185,318,638	85,14,039	28,761,685	13,40,686	76,638,543	12,29,919	290,718,866	110,84,674	1,913	88	3,387	158	574	9	1,217	46
„ 1911-12	166,538,603	80,50,904	28,351,270	14,70,953	62,304,550	11,12,869	257,194,423	10,634,726	1,732	84	3,337	173	450	8	1,059	44
„ 1910-11	160,096,649	73,24,167	37,918,742	8,51,191	62,567,784	13,52,464	260,583,175	95,27,822	1,661	76	4,457	100	451	10	1,070	39
„ 1909-10	148,584,547	65,72,945	35,563,965	5,10,160	56,984,415	12,28,313	241,132,930	83,11,418	1,540	68	4,035	58	406	9	982	34

(a) Excludes lopped or seized timber and Guzara Forests.
(b) Outturn of reserved and unreserved lands.

STATE

Forest produce removed

Part I.—Timber and Fuel.

PROVINCE.	TIMBER.					FUEL.				
	By Government.	By purchasers.	By free-grantees.	By right holders.	Total.	By Government.	By purchasers.	By Free grantees.	By right-holders.	TOTAL.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	44,633	7,871,783	17,993	..	7,934,409	7,519	15,360,110	2,134,006	..	17,501,635
United Provinces	1,60,798	5,858,730	75,988	423,250	6,518,766	7,14,424	5,814,325	243,953	2,838,024	9,610,726
Punjab	190,153	4,115,457	86,365	925,101	5,317,076	1,219,651	3,515,899	105,993	12,312,222	17,153,765
Burma	3,193,050	38,405,490	1,339,049	1,476,593	44,414,182	1,493,327	22,431,026	375,656	1,232,498	25,532,507
Bihar and Orissa	12,475	1,306,052	26,293	199,557	1,544,377	11,000	1,971,782	36,079	13,988,997	16,007,858
Assam	193,035	5,282,756	1,062,529	..	6,538,320	37,326	3,203,375	4,476,914	7,200	7,724,815
Central Provinces	1,127,033	6,371,190	1,324,537	71,985	8,894,745	1,455,453	24,194,510	10,762,752	1,227,271	37,639,986
Coorg	238,093	156,452	..	..	394,545	19,900	146,600	..	..	166,500
North-West Frontier Province ..	1,860	3,136,962	6,140	5,331	3,150,023	92,272	435,835	466,267	479,756	1,524,130
Ajmer	239	3,435	..	6,084	9,758	48,895	395,819	3,970	..	448,684
Baluchistan	2,315	3,600	9,025	..	14,940	18,820	182,582	..	..	201,402
Andamans	612,667	30,622	29,880	34,802	707,971	724,464	25,920	239,040	124,160	11,13,584
Madras	579,081	4,734,744	188,684	238,584	5,741,093	3,259,127	18,678,505	30,104	792,444	22,760,180
Bombay	1,300,086	4,532,623	133,336	78,920	6,044,965	4,530,816	28,051,582	20,138	7,429,845	40,032,381
Total 1913-14 ..	7,655,518	81,809,626	4,299,819	3,460,207	97,225,170	13,632,994	124,457,870	18,894,872	40,432,417	197,418,153
" 1912-13 ..	7,677,116	80,302,172	3,157,166	3,823,795	94,960,249	15,255,136	122,846,567	9,462,190	48,194,724	195,758,617
" 1911-12 ..	6,560,737	62,036,563	2,356,266	3,478,234	74,331,800	22,289,684	107,437,118	6,822,664	46,312,617	182,862,623
" 1910-11 ..	6,754,486	60,347,327	2,148,514	3,261,808	72,512,145	21,811,830	110,724,396	6,723,782	75,009,022	188,071,030
" 1909-10 ..	6,73,088	54,516,295	2,130,724	2,609,490	65,990,597	22,413,511	90,751,966	5,911,229	56,065,627	175,142,333

MENT XIV.

by different agencies.

Part II.—Value of minor forest produce.

Province.	Bamboos.					Grazing and Fodder Grass.					Other Minor Produce.				
	By Government.	By purchasers.	By free grantees.	By right-holders.	Total.	By Government.	By purchasers.	By free grantees	By right-holders.	Total.	By Government.	By purchasers.	By free grantees.	By right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	14	51,772	17	..	51,803	..	73,964	29,474	..	103,438	1,882	1,92,009	4,842	..	1,98,733
United Provinces..	257	1,81,992	29	1,256	1,83,534	156	1,36,196	35,349	74,320	2,46,021	2,08,847	2,45,211	3,434	1,90	4,59 394
Punjab	3,300	..	13,099	215	16,614	..	4,564	2,01,249	19,62,149	2,167,962	1,02,152	61	15,606	44,725	1,62,544
Burma	249	2,75,403	349	15,665	2,91,666	..	10,450	51,561	1,92,396	2,54,407	1,910	2,48,770	1,182	55,970	3,07,832
Bihar and Orissa	13,209	22,085	448	20,032	55,774	..	9,402	77	80,571	90,050	29	68,876	305	18,387	87,597
Assam	69	39,105	4,947	..	44,121	..	76,381	1,86,044	15	2,62,440	27,041	1,43,114	2,23,112	..	3,93,267
Central Provinces	9,773	2,57,331	8,504	3,931	2,79,539	1,49,785	14,70,246	67,533	1,090	(c) 16,88,654	25,270	2,10,552	26,183	4,049	2,66,054
Coorg	..	(a) 1,091	..	..	1,091	..	950	..	122	1,072	..	23,221	..	..	23,221
North-West Frontier Province.	..	..	..	..	..	..	12,237	17,076	(b) 7,127	36,440	240	198	3	..	441
Ajmer	3	397	..	..	400	2,125	3,317	1,413	15,419	22,274	225	938	..	..	1,163
Baluchistan ..	..	..	..	..	..	..	1,491	..	41,470	42,961	136	354	166	..	656
Andamans ..	40	36	249	172	497	..	..	..	..	..	1,079	290	2,540	751	4,660
Madras	20,305	2,44,212	899	342	2,65,758	8,459	681,849	5,315	2,066	6,97,689	50,167	8,27,473	1,367	25,978	9,04,985
Bombay ..	148	97,085	860	16,663	1,14,756	2,053	4,59,564	12,211	2,93,873	7,67,701	89,890	1,43,690	1,400	66,152	3,01,132
Total 1913-14	47,367	11,70,509	29,401	58,276	13,05,553	1,62,578	29,40,611	6,07,302	26,70,618	63,81,109	5,08,868	21,04,757	2,80,140	2,17,914	31,11,679
,, 1912-13	82,514	10,38,771	25,199	50,079	11,96,563	3,57,249	31,15,811	3,16,915	27,57,262	65,47,237	3,79,583	24,83,720	2,66,250	2,11,321	33,40,874
,, 1911-12	1,23,106	10,71,367	14,503	80,495	10,89,471	3,40,149	25,90,178	3,51,957	29,13,447	61,95,628	4,59,916	21,26,552	2,57,512	3,05,647	31,49,627
,, 1910-11	1,20,352	9,44,280	12,204	84,104	11,60,940	10,521	24,63,347	2,67,505	22,14,020	49,55,393	2,83,744	20,52,922	2,76,733	7,97,507	34,10,906
,, 1909-10	1,15,827	9,26,627	9,294	1,03,059	11,54,807	15,668	25,19,907	2,45,636	8,12,436	35,93,647	3,48,747	21,07,944	2,48,075	8,58,198	35,62,964

(a) Includes also price of 44,620 reeds.
(b) Includes fodder leaves.
(c) Excludes Rs. 564 being the excess dues on certain cattle.

STATEMENT XV.

Exports of forest produce.

Articles of forest produce.	Quantity in tons of 20 cwt. in the case of teak and other timbers, cubic tons.		Valuation at port of shipment in 1913-14.	
	Average of 5 years 1908-09 to 1912-13.	In 1913-14.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc, raw	310	1,163	78,67,293	6,765
Lac — Button	1,833	1,093	13,07,089	1,196
Lac — Shell	18,293	13,768	1,69,78,138	1,233
Lac — Stick, seed and other kinds ..	2,008	2,097	13,72,774	655
Cutch and gambier	3,444	2,943	9,32,438	317
Myrabolams	72,243	61,820	56,94,385	92
Cardamums	142	167	7,49,919	4,491
Sandal, Ebony and other ornamental woods ..	(a)	(a)	19,48,537	..
Teak ..	45,145	50,737	78,64,761	155
Other timbers	6,098	7,935	7,09,784	89
Total in 1913-14		..	4,54,25,118	
„ 1912-13			4,67,80,613	
„ 1911-12			3,96,36,932	
„ 1910-11			4,26,71,543	
„ 1909-10			(b) 4,20,96,717	

(a) Quantity (whether by weight or measurement) not recorded.
(b) Corrected figure. Includes " other timbers " previously excluded.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province. (1)	Timber. (2)	Fuel. (3)	Bamboos. (4)	Grass and grazing. (5)	Other minor produce. (6)	Total. (7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	2,986	22,079	11,498	58,176	4,842	99,581
United Provinces	69,423	46,271	1,287	1,45,698	6,166	2,68,845
Punjab	53,844	6,31,239	215	19,80,661	44,786	27,10,745
Burma	2,95,977	10,700	19,056	2,43,957	54,110	6,23,800
Bihar and Orissa	16,423	1,29,037	20,480	80,648	19,785	2,66,373
Assam	74,699	61,425	4,947	1,86,525	2,23,112	5,50,708
Central Provinces	22,032	72,232	22,324	3,78,635	45,833	5,41,056
Coorg	..	..	..	122	..	122
North-West Frontier Province ..	2,349	21,937	..	24,103	103	48,492
Ajmer	760	397	..	16,832	..	17,989
Baluchistan	2,811	..	..	41,470	278	44,559
Andamans	1,294	9,080	421	..	3,291	14,086
Madras	39,245	7,815	1,241	9,292	27,344	84,937
Bombay	3,31,402	9,15,753	32,523	6,06,471	2,47,552	2,133,701
Total 1913-14	9,13,245	19,27,965	1,13,992	37,72,590	6,77,202	74,04,994
„ 1912-13	6,03,992	17,61,889	1,08,600	37,63,678	6,62,760	69,00,919
„ 1911-12	5,21,934	17,85,668	1,23,517	37,62,335	7,94,414	69,87,868
„ 1910-11	4,95,091	13,50,942	1,24,953	26,03,134	7,84,434	53,58,554
„ 1909-10	5,91,704	12,73,626	1,12,783	19,86,080	7,07,099	46,71,292

STATEMENT XVII.

Details of revenue and expenditure for the Forest year 1913-14.

					Rs.
Gross Receipts ..	(a) Wood ..				2,53,29,670
	(b) Minor forest produce				26,08,433
	(c) Forest stamps and commutation fees for forest produce				1,21,415
	(d) Grazing				30,25,237
	(e) Revenue from forests not managed by Government				3,69,665
	(f) Miscellaneous				14,75,682
			Total Revenue	..	3,29,30,102
Expenditure ..	A. Recurring ..	(a) Administration.	(i) Superior Staff	..	34,37,038
			(ii) Subordinate Staff (including Rangers, Foresters and Guards).		32,16,957
			(iii) Office Establishments (including Contingencies).		18,28,224
		(b) Working ..	(1) Extraction	..	3,380,855
			(2) Roads and Buildings	..	18,22,670
			(3) Fire-protection	..	6,44,032
			(4) Cultural operations	..	7,31,481
			(5) Live-stock, stores and plant	..	5,18,219
			(6) Working-Plans	..	62,281
			(7) Rent for leased forests	..	3,70,472
			(8) Miscellaneous	..	2,44,128
		(c) Expenditure on realization of revenue from forests not managed by Government.			5,570
		(d) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute.*			3,21,578
			Total	..	1,65,83,505
	B Extraordinary ..	(e) Forest Settlement		..	2,28,641
		(f) Forest Survey		..	82,606
		(g) Forest Demarcation		..	1,59,075
			Total	..	4,70,322
			GRAND TOTAL OF EXPENDITURE	..	1,70,53,827
			Net Revenue	..	1,58,76,275

*Expenditure under this head in provinces has been included in (a) Administration.

STATEMENT

Summary of revenue and expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Bihar and Orissa.	Assam.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
REVENUE.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the forests by Government agency.	4,920	17,939	3,80,914	3,22,825	23,10,894	19,752	1,09,939
II.—Timber and other produce removed from the forests by consumers or purchasers.	6,551	15,34,683	31,99,413	9,08,277	83,10,249	4,57,919	8,28,276
III.—Drift and waif wood and confiscated forest produce.	..	5,320	7,629	28,310	3,18,391	896	19,423
IV.—Revenue from forests not managed by Government.	..	..	13,060	2,040	2,72,696	..	70,509
V.—Miscellaneous	..	58,169	1,11,471	93,491	2,13,200	13,168	69,822
Total Revenue ..	(a) 11,471	16,16,111	37,12,487	13,54,943	1,14,25,430	4,91,735	10,97,969
EXPENDITURE.							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forests by Government agency.	480	195	3,90,427	1,24,277	7,92,650	7,402	58,890
II.—Timber and other produce removed from the forests by consumers or purchasers.	..	1,15,613	55,175	5,226	1,39,526	10,911	22,275
III.—Drift and waif wood and confiscated forest produce.	..	668	2,707	13,211	79,052	1,076	761
IV.—Revenue from forests not managed by Government.	..	..	3,612	..	143	..	1,685
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	..	360	1,71,734	45,685	..	..	62,252
VI.—Live-stock, stores, tools and plant.	..	27,465	40,380	38,854	1,66,026	4,503	34,345
VII.—Communications and buildings ..	..	1,03,630	2,20,211	1,17,559	2,95,348	76,373	2,01,200
VIII.—Demarcation, improvements and extension of forests.	718	49,699	3,08,536	83,313	4,52,060	26,791	70,324
IX.—Miscellaneous	..	3,884	25,927	9,023	36,158	2,404	19,291
Total A.—Conservancy and Works ..	(b) 1,198	3,01,514	12,18,709	4,37,148	19,60,963	1,29,460	4,71,023
B.—Establishments.							
I.—Salaries	97,451	2,77,674	5,25,222	3,61,907	18,83,217	1,88,144	3,49,919
II.—Travelling Allowances	353	41,351	88,095	80,895	3,07,737	29,751	62,451
III.—Contingencies	294	19,618	63,988	39,227	1,22,984	8,293	26,847
Total B.—Establishments ..	(c) 98,098	3,38,643	6,77,305	4,82,029	23,13,938	2,26,188	4,39,217
Grand Total of Expenditure ..	99,296	6,40,157	18,96,014	9,19,177	42,74,901	3,55,648	9,10,240
Surplus ..	..	9,75,954	18,16,473	4,35,766	71,50,529	1,36,087	1,87,729
Deficit ..	87,825	..	..	..	..	..	..
Percentage of surplus to gross revenue..	..	60	49	32	63	27	17
Net revenue per square mile of forest area under control of Forest Department.	..	92	435	52	51	49	8

(a) Includes revenue derived from Indore.
(b) Includes expenditure on account of Indore and Bangalore.
(c) Includes expenditure on account of Indore

XVIII.

Forest Department in India for the financial year 1913-14.

Central Provinces. (9)	Coorg. (10)	North-West Frontier Province. (11)	Ajmer. (12)	Baluchistan. (13)	Andamans. (14)	Forest College and Research Institute. (15)	Forest Surveys (Imperial). (16)	Madras. (17)	Bombay. (18)	TOTAL. (19)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
2,40,567	2,72,166	21,594	3,916	11,092	4,36,276	..	..	7,63,872	17,63,632	66,80,298
27,61,349	54,415	2,33,664	26,748	2,258	7,226	..	..	30,02,336	31,67,308	2,45,00,672
3,381	..	2,801	29	..	..	..	..	17,451	4,697	4,08,328
2,370	..	1,517	..	6,360	..	..	..	..	5,824	3,74,376
1,78,786	2,646	7,165	3,204	278	2,309	5,806	..	4,16,661	1,61,695	13,37,871
31,86,453	3,29,227	2,66,741	33,897	19,988	4,45,811	5,806	..	42,00,320	51,03,156	33,301,545
1,30,711	24,379	19,381	1,747	3,552	1,41,326	..	..	2,28,409	7,34,472	26,58,298
1,50,341	6	466	284	..	100	..	..	1,31,452	55,951	6,87,326
13	..	310	..	..	..	..	..	2,243	134	1,00,175
..	..	..	..	133	..	..	..	..	..	5,573
..	..	31,848	..	..	..	..	..	16,590	32,837	3,61,306
40,006	11,759	520	637	125	16,322	44,353	..	1,30,771	18,882	5,74,948
2,46,914	26,494	10,281	2,066	398	2,208	22,399	..	3,46,735	1,99,208	18,71,024
2,04,449	45,534	1,900	2,379	36	44,725	..	37,743	5,13,723	1,57,248	19,99,178
30,789	1,062	3,392	62	231	3,535	20,149	..	11,829	53,709	2,21,445
8,03,223	1,09,234	68,098	7,175	4,475	2,08,216	86,901	37,743	13,81,752	12,52,441	84,79,273
9,33,349	59,365	49,793	13,790	18,174	58,956	1,72,597	..	11,65,495	11,35,169	72,90,222
1,25,483	7,875	8,610	1,549	2,263	6,419	16,016	..	2,49,947	1,44,649	11,73,444
91,074	2,040	4,522	1,081	398	1,085	22,824	..	1,38,623	57,618	6,00,516
11,49,906	69,280	62,925	16,420	20,835	66,460	2,11,437	..	15,54,065	13,37,436	90,64,182
19,53,129	1,78,514	1,31,023	23,595	25,310	2,74,676	2,98,338	37,743	29,35,817	25,89,877	1,75,43,455
12,33,324	1,50,713	1,35,718	10,302	..	1,71,135	..	..	12,64,503	25,13,279	1,57,58,090
..	..	..	..	5,322	..	2,92,532	37,743	..	..	..
39	46	50	30	..	38	..	..	30	49	47
63	290	575	73	..	77	..	..	64	124	..

STATE

Revenue, expenditure and surplus of the Forest Department

I RE-

Province.	1889-90	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-00.	1900-01.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial*	4,759	6,370	6,688	5,240	2,680	4,980	2,690	41,000	19,130	17,540	6,090	2,463
Bengal†	7,68,718	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710	13,70,850	11,89,280	9,72,310	11,38,910	12,33,339
United Provinces	17,14,159	16,37,879	17,31,514	16,52,540	17,09,860	16,58,250	16,01,340	14,44,820	13,86,670	15,68,040	16,14,740	15,65,463
Punjab	9,21,713	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500	11,07,720	10,68,470	14,74,430	14,00,770	13,50,842
Burma	49,40,786	43,21,068	41,85,414	56,60,000	57,85,100	54,36,780	56,95,830	63,78,950	72,15,260	83,50,890	78,12,050	80,54,444
Bihar and Orissa	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	3,79,498	3,26,793	3,36,129	3,82,830	4,88,500	4,35,090	4,25,030	4,36,440	3,84,820	3,98,180	5,68,100	5,49,521
Central Provinces ..	15,96,722	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140	11,80,400	14,34,940	12,97,490	12,65,614
Coorg	92,753	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910	1,55,070	1,62,410	1,37,596
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	11,592	15,266	19,799	14,890	14,620	12,840	15,640	12,370	15,540	14,420	10,270	10,646
Baluchistan	13,897	15,724	20,609	19,030	20,730	16,300	14,930	15,480	15,040	14,920	17,060	16,956
Andamans	1,62,195	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710	2,29,460	2,60,600	2,77,886
Imperial Forest College and Research Institute.	1,237	1,184	1,788	1,980	1,990	2,790	4,310	2,850	2,890	2,360	3,210	3,697
Forest Surveys (Imperial)	220	2,104	257	520	240	80	510	400	220	290	420	327
Total ..	1,06,08,240	98,83,507	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14,52,140	1,25,20,470	1,30,42,340	1 46,32,850	1,42,92,120	1,44,68,794
Madras	15,57,627	17,95,408	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	23,03,330	21,36,490	21,10,520	23,02,290	23,40,170
Bombay	31,37,606	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670	30,32,710	26,16,660	22,95,150	24,15,200	29,61,529
GRAND TOTAL ..	1,53,03,572	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,493
											(II)	EXPEN
Imperial*	81,311	85,414	65,738	1,07,270	80,840	84,950	80,410	78,960	84,300	85,460	96,550	83,578
Bengal†	3,98,150	4,14,004	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070	6,90,040	6,53,440	4,86,320	5,45,210	5,70,806
United Provinces ..	9,63,151	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860	9,06,340	9,17,850	9,72,030	9,42,380	9,63,439
Punjab	6,45,855	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7,23,300	7,71,940	8,55,340	12,11,460	8,87,343
Burma	16,06,644	13,88,789	16,98,980	18,05,000	18,62,500	19,17,990	19,33,600	21,28,820	21,96,610	24,26,190	24,47,440	26,54,717
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	2,57,129	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010	2,88,830	3,05,360	3,57,140	3,47,972
Central Provinces ..	8,79,458	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860	11,65,490	11,09,400	12,75,820	11,65,866
Coorg	72,420	65,818	86,860	73,090	86,890	86,140	85,840	71,630	87,020	80,100	74,220	70,905
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	12,701	12,720	13,936	15,000	15,900	14,900	15,730	22,010	14,670	16,300	15,350	16,782
Baluchistan	17,962	29,450	30,497	55,620	63,730	40,910	41,770	29,770	27,330	27,760	28,630	29,254
Andamans	94,975	1,30,052	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600	2,47,340	1,38,400	1,40,940	1,40,137
Imperial Forest College and Research Institute.	29,616	35,191	44,347	50,400	65,530	65,980	67,950	67,380	60,920	63,370	73,550	71,238
Forest Surveys (Imperial)	21,188	24,324	26,882	22,160	27,900	29,840	29,950	31,970	33,950	33,970	33,980	33,991
Total ..	50,80,590	49,46,325	54,38,471	56,70,870	59,05,990	59,19,020	59,23,610	65,41,690	65,49,690	66,00,000	72,42,720	70,36,028
Madras	11,61,237	12,46,913	12,24,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,300	15,72,850	15,94,670	16,53,530	17,15,431
Bombay	17,70,691	18,69,887	19,31,457	19,04,970	20,71,940	20,67,920	19,58,390	19,69,160	20,73,190	18,39,250	21,28,430	24,08,581
GRAND TOTAL ..	80,12,518	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040
												(III)
Imperial*	—76,552	—79,044	—59,100	—1,02,030	—78,160	—79,970	—77,720	—74,860	—65,170	—67,920	—90,460	—81,115
Bengal†	3,70,568	3,13,388	3,66,623	3,63,270	3,97,570	3,89,280	4,52,640	6,80,810	5,35,840	4,85,990	5,93,700	6,62,533
United Provinces ..	7,51,008	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	5,38,480	4,68,820	5,96,090	6,72,360	6,02,024
Punjab	2,75,858	1,81,329	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530	6,19,010	1,89,310	4,63,499
Burma	33,34,142	29,33,179	24,86,434	38,55,000	39,22,600	35,18,790	37,62,230	42,50,130	50,18,650	59,24,700	53,64,610	53,99,727
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	1,22,369	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990	92,820	2,10,960	2,01,549
Central Provinces ..	7,17,264	7,95,095	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430	98,280	14,910	3,25,540	21,670	99,748
Coorg	20,333	69,743	96,037	1,07,590	86,900	66,910	49,410	21,670	43,890	47,970	88,190	66,691
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	..	..
Ajmer	—1,109	2,546	5,813	—110	—1,280	—2,060	—90	—9,640	870	—1,880	—5,080	—6,136
Baluchistan	—4,065	—13,726	—9,888	—36,590	—43,000	—24,610	—26,840	—14,310	—12,290	—12,840	—11,620	—12,298
Andamans	67,220	28,274	92,429	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370	91,060	1,19,660	1,37,749
Imperial Forest College and Research Institute.	—28,400	—34,007	—42,559	—48,420	—63,540	—63,190	—63,640	—64,530	—58,030	—61,010	—70,340	—67,541
Forest Surveys (Imperial)	—20,968	—22,220	—26,625	—21,640	—27,660	—29,760	—29,440	31,570	—33,730	—33,680	—33,560	—33,664
Total ..	55,27,950	49,37,142	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78,780	64,92,650	80,32,850	70,49,400	74,32,766
Madras	3,98,390	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960	7,69,030	5,63,640	5,15,850	6,48,760	6,24,739
Bombay	13,67,005	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550	5,43,470	4,54,900	2,86,770	5,52,948
GRAND TOTAL ..	72,91,054	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,84,930	86,10,452

*Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, Office Establishment and undistributable and petty local items of revenue and charges on
†Includes figures up to 1910-11 for districts subsequently transferred to Bihar and Orissa.
‡Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred to Bengal.

MENT XIX.

throughout India during the 25 financial years from 1889-90 to 1913-14.

VENUE.

1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	Province.]
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
3,484	3,659	7,455	3,768	7,255	..	7,666	8,189	10,632	8,662	10,680	12,837	11,471	Imperial.*
12,92,237	12,56,247	10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11,84,845	10,80,640	11,67,444	11,22,442	16,00,601	16,16,111	Bengal.†
17,15,508	20,25,324	22,80,446	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	23,78,439	30,16,160	35,43,963	37,12,487	United Provinces.
14,47,558	15,86,408	17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,633	12,17,988	13,10,077	12,39,033	13,54,943	Punjab.
58,73,938	67,39,053	82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	19,92,032	93,58,077	1,00,70,117	99,67,594	1,09,22,393	1,14,25,430	Burma.
..	..	..	..	..	..	..	..	..	..	4,07,213	4,38,078	4,91,735	Bihar and Orissa.
5,12,963	5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,34,732	18,00,635	11,46,320	11,42,091	10,97,969	Assam.‡
15,79,116	16,84,428	19,98,032	20,13,459	24,49,131	24,01,150	22,90,128	20,78,162	20,78,340	21,14,226	25,49,854	31,71,815	31,86,453	Central Provinces and Berar.
1,70,242	1,90,730	2,24,031	1,93,087	2,45,419	2,35,900	2,74,756	2,24,330	2,13,129	2,76,055	2,95,170	2,81,652	3,29,227	Coorg.
13,012	1,01,123	1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	1,58,171	2,37,183	2,66,741	North-West Frontier Province.
6,865	9,736	13,884	17,297	15,002	18,335	29,964	27,615	23,990	33,846	26,361	36,596	33,897	Ajmer.
14,712	19,336	18,363	22,555	21,481	21,195	24,829	23,305	18,729	23,212	20,117	20,159	19,988	Baluchistan.
2,66,903	3,26,035	4,32,381	6,20,796	5,82,511	6,07,027	2,10,822	2,02,018	2,59,477	4,16,773	5,22,160	4,49,925	4,45,811	Andamans.
3,545	3,252	3,088	3,557	3,080	4,579	6,137	4,680	4,909	4,080	5,550	7,611	5,806	Imperial Forest College and Research Institute.
473	3,034	431	..	..	..	..	..	..	..	..	..	..	Forest Surveys (Imperial).
1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	1,98,06,819	2,05,57,869	2,31,04,817	2,30,98,069	Total.
25,43,430	26,13,819	26,57,727	28,29,216	29,67,604	32,00,669	38,03,830	38,90,019	41,78,381	38,80,411	41,68,921	41,12,473	42,00,320	Madras.
23,79,720	23,29,156	27,51,539	30,20,558	38,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	43,30,569	49,92,519	51,03,156	Bombay.
1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,593	2,64,01,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	2,90,57,359	3,22,09,809	3,33,01,545	Grand Total.
DITURE.													
79,539	85,017	89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	94,714	1,04,162	99,296	Imperial.*
6,57,131	6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	7,06,374	6,60,794	6,40,157	Bengal.†
10,08,739	10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,94,013	12,22,436	12,09,308	12,37,938	13,63,673	16,29,264	18,96,014	United Provinces.
9,38,335	9,60,095	11,56,415	10,12,354	12,65,664	11,44,403	11,76,696	8,51,627	6,67,752	7,40,542	7,65,146	7,99,176	9,19,177	Punjab.
26,46,457	28,90,263	33,32,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	38,42,799	41,31,162	41,38,584	42,74,901	Burma.
..	..	..	..	..	..	..	..	..	..	3,00,916	3,75,894	3,55,648	Bihar and Orissa.
3,29,112	3,27,498	4,25,484	5,03,656	5,93,910	7,07,860	8,00,373	8,91,349	10,12,541	10,87,340	8,41,013	8,08,911	9,10,240	Assam.‡
12,00,904	12,57,283	12,80,966	13,20,615	13,07,153	13,42,898	15,83,407	17,53,307	15,86,852	15,89,533	18,38,379	19,46,735	19,53,129	Central Provinces and Berar.
82,333	89,437	92,191	83,820	95,748	1,02,855	1,04,819	99,505	1,07,822	1,07,679	1,21,174	1,61,544	1,78,514	Coorg.
19,510	54,086	60,603	74,958	95,258	93,650	88,400	81,413	77,391	72,492	89,436	1,22,173	1,31,023	North-West Frontier Province.
15,927	16,377	16,680	15,641	17,131	16,715	18,188	19,916	19,272	19,918	22,343	29,714	23,595	Ajmer.
24,480	23,240	21,697	24,672	25,743	26,322	31,258	36,586	26,549	26,387	28,947	28,527	25,310	Baluchistan.
2,04,667	2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	2,26,963	2,61,732	2,55,141	2,74,676	Andamans.
76,290	66,338	59,339	61,424	80,669	1,57,486	1,58,038	1,83,191	1,96,174	2,19,183	2,63,441	2,68,445	2,98,338	Imperial Forest College.
33,730	33,085	33,935	28,220	30,044	30,389	27,060	39,128	41,062	41,140	38,798	35,809	37,743	Forest Surveys, (Imperial).
73,17,154	77,37,338	86,40,123	90,77,954	98,65,826	95,02,956	97,76,649	97,64,900	95,17,931	99,47,895	1,08,67,248	1,13,64,873	1,20,17,761	Total.
17,09,554	18,35,552	17,50,930	19,36,098	22,66,602	24,80,660	27,80,857	29,17,261	33,39,635	32,25,801	34,14,882	31,50,482	29,35,817	Madras.
17,19,690	16,78,441	17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	20,63,088	20,70,417	26,64,436	26,92,455	25,89,877	Bombay.
1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,933	1,47,26,034	1,49,20,654	1,52,44,023	1,69,46,566	1,72,07,810	1,75,43,455	Grand Total.
SURPLUS.													
—76,055	—81,358	—81,890	—79,290	—76,512	—95,472	—92,538	—95,994	—93,700	—83,944	—84,034	—91,325	—87,825	Imperial.*
6,35,196	6,18,233	3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,159	4,16,068	9,39,807	9,75,954	Bengal.†
7,06,769	10,11,326	11,99,008	10,05,735	10,28,246	11,96,013	12,15,732	9,52,970	10,91,586	11,40,501	16,52,487	19,14,099	18,16,473	United Provinces.
5,09,223	6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	4,37,165	3,64,881	4,77,446	5,44,931	4,39,857	4,35,766	Punjab.
32,27,481	38,48,790	49,16,131	55,12,332	63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	58,36,432	67,83,809	71,50,529	Burma.
..	..	..	..	..	..	..	..	..	..	1,06,297	63,064	1,36,087	Bihar and Orissa.
1,83,851	2,52,701	2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	3,05,307	3,33,180	1,87,729	Assam.‡
3,78,212	4,27,140	7,17,066	6,92,844	11,41,978	10,58,231	7,03,721	3,24,855	4,91,488	5,24,693	7,11,475	12,25,080	12,33,324	Central Provinces and Berar.
87,909	1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	1,68,376	1,73,996	1,20,108	1,50,713	Coorg.
—6,498	47,038	41,230	16,033	33,271	89,564	1,50,090	41,369	95,914	1,32,850	68,735	1,15,010	1,35,718	North-West Frontier Province.
—9,062	—6,641	—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	13,923	4,018	6,882	10,302	Ajmer.
—9,768	—3,904	—3,334	—2,117	—4,262	—5,127	—6,429	—13,281	—7,820	—3,175	—8,830	—8,368	—5,322	Baluchistan.
62,236	44,333	1,66,230	2,78,365	2,46,526	3,11,891	62,555	21,077	65,318	1,89,810	2,60,428	1,94,784	1,71,135	Andamans.
—72,745	—63,036	—56,301	—57,867	—77,589	—1,32,997	—1,51,901	—1,78,511	—1,91,265	—2,15,103	—2,57,891	—2,60,834	—2,92,532	Imperial Forest College.
—33,257	—30,951	—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	—38,798	—35,809	—37,743	Forest Surveys (Imperial).
55,83,402	67,91,227	81 07,355	91,02,222	1,03,56,170	1,01,35,380	85,46,323	82,13,624	85,71,826	98,59,014	96,90,621	1,17,39,944	1,19,80,308	Total.
8,33,876	7,78,267	9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	7,54,039	9,61,991	12,64,503	Madras.
6,60,949	6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47,807	16,66,133	23,00,064	25,13,279	Bombay.
70,77,327	82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	1,21,10,793	1,50,01,999	1,57,58,090	Grand Total.

account of Indore and Bangalore. Excludes Home charges.

STATEMENT XX.

FOREST PUBLICATIONS ISSUED DURING THE PERIOD 1909-10 TO 1913-14.

I.—Publications of the Forest Research Institute.

	Price (exclusive of packing, postage, etc.) Rs. A. P.
1.—LEAFLETS.	
The Larger Deodar Bark-Borer (*Scolytus major*, Steb.), by E. P. Stebbing	0 4 0
The Blue Pine "Polygraphus" Bark-Borer (*Polygraphus major*, Steb.), by the same author	0 3 0
2.—PAMPHLETS.	
Note on Lac and Lac Cultivation, by D. N. Avasia	0 2 0
Notes on Sâl in Bengal, by A. L. McIntire	0 4 0
Note on Forest Reservation in Burma in the Interests of an Endangered Water-Supply, by A. Rodger	1 0 0
Note on Andaman Marble Wood or Zebra Wood (*Diospyros Kurzii*, Hiern.), by R. S. Troup	0 4 0
Note on the Collection of Statistical Data relating to the Principal Indian Species, by A. M. F. Caccia	0 10 0
Tables showing the Progress in Working-Plans in the Provinces outside the Madras and Bombay Presidencies up to 31st December 1908, by the same author	0 10 0
Note on Burmese Leza Wood (*Lagerstræmia tomentosa*, Presl.), by R. S. Troup	0 2 0
Note on Carallia Wood (*Carallia integerrima*, Dc.), by the same author	0 2 6
Note on Petwun or Trincomali Wood (*Berrya Ammonilla*, Roxb.), by the same author	0 4 0
Note on Burmese In Wood (*Dipterocarpus tuberculatus*, Roxb.), by the same author	1 0 0
Note on Burma Padouk (*Pterocarpus macrocarpus* Kurz.), by the same author	1 0 0
A Note on the Preservation of Bamboos from the Attacks of the Bamboo Bettle or "Shot-Borer," by E. P. Stebbing	0 7 0
Note on the Best Season for Coppice Fellings of Teak (*Tectona grandis*), by R. S. Hole	0 4 0
3.—BULLETINS (NEW SERIES).	
1.—Note on Calorimetric Tests of Some Indian Woods, by Puran Singh	0 2 0
2.—Memorandum on Teak Plantations in Burma, by F. A. Leete	0 10 0
3.—Note on the Relative Strength of Natural and Plantation-Grown Teak in Burma, by R. S. Pearson	0 4 0
4.—Second Edition of the Glossary of Technical Terms for Use in Indian Forestry, by A. M. F. Caccia, revised by R. S. Troup	0 6 0
5.—The Blue Pine Tomicus Bark-Borer (*Tomicus Ribbentropi*), by E. P. Stebbing.	0 2 0
6.—Note on the Oil Value of Sandalwood, by Puran Singh	0 2 0
7.—Note on the Chemistry and Trade Forms of Lac, by the same author	0 3 0
8.—Note on Some Germination Tests with Sal Seed (*Shorea robusta*), by R. S. Troup	0 2 0
9.—Note on Resin Value of *Podophyllum Emodi* and the best season for collecting it, by Puran Singh	0 1 3
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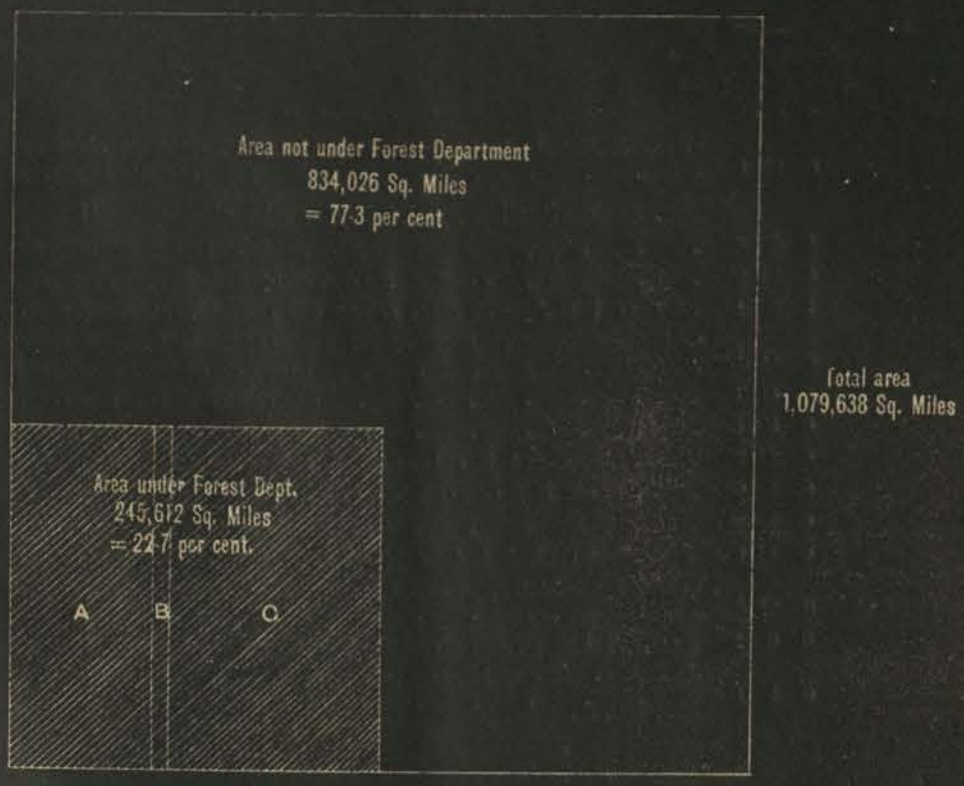
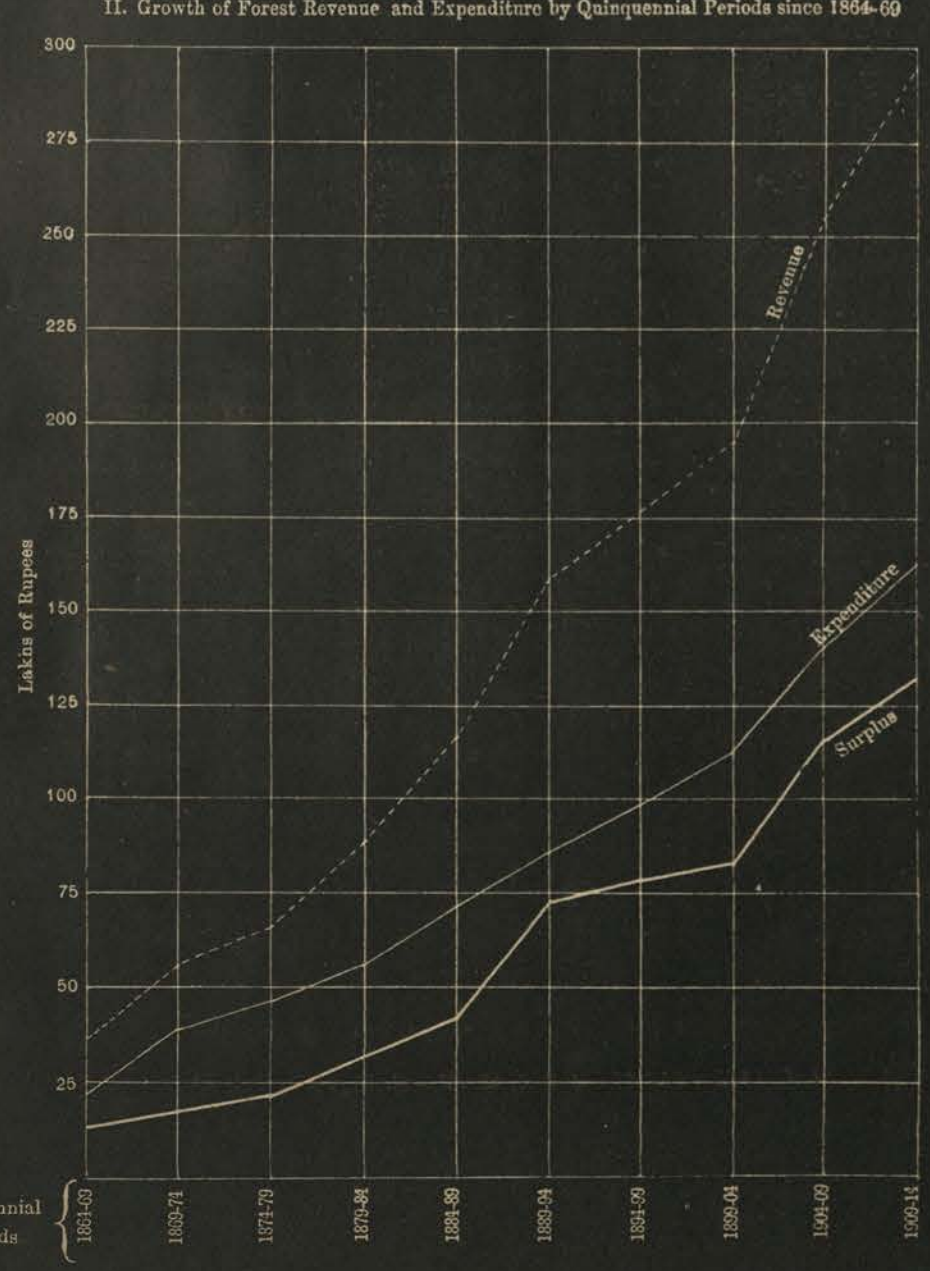
STATISTICAL DIAGRAMS RELATING TO FOREST ADMINISTRATION IN BRITISH INDIA.

I. Area under the Control of the Forest Department Compared with the Total Area of British India (including the Shan States.)



A. reserved Forests 96,297 Sq. Miles B. protected Forests 8,390 Sq. Miles C unclassed Forests 140,925 Sq. Miles

II. Growth of Forest Revenue and Expenditure by Quinquennial Periods since 1864-69



ANNUAL RETURN

OF

STATISTICS

RELATING TO

FOREST ADMINISTRATION

IN

BRITISH INDIA,

FOR THE YEAR

1914-15.

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OF THE

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APPENDIX.

Diagram showing annual Forest Revenue, Expenditure and surplus for the 10 years 1905-06 to 1914-15.

STATEMENT I.

Area of forests under the control of the Forest Department.

Province.		Forest area in square miles.				Percentage of forests to whole area of Province.	Remarks.
Name.	Area in square miles	Reserved.	Protected.	Unclassed State.	Total.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	78,875	(a) 4,871	(b) 1,711	4,030	10,612	13·5	(a) Excludes 17 square miles of reserved forest not under the management of the Forest Department.
United Provinces ..	106,725	(c) 4,261	(d) 3,186	40	7,487	7·0	(b) Excludes 54 square miles not under the control of the Forest Department.
Punjab	96,650	(e) 2,165	(f) 3,961	2,111	8,237	8·5	(c) Includes 160 square miles of leased forests.
Burma including Shan States.	224,854	28,239	..	114,127	142,366	63·3	(d) Excludes 5,771 square miles of undemarcated protected forests not under the control of the Forest Department.
Bihar and Orissa ..	83,125	1,727	(g) 1,063	..	2,790	3·4	(e) Includes 365 square miles of leased forests, but excludes 110 square miles of reserved forests not under the control of the Forest Department.
Assam	48,915	4,528	..	18,218	22,746	46·5	
Central Provinces (including Berar).	99,947	(h) 19,667	..	..	19,667	19·7	(f) Excludes 94 square miles not under the control of the Forest Department.
Coorg	1,582	520	..	..	520	32·9	(g) Excludes 994 square miles of other protected forests not under the management of the Forest Department.
North-West Frontier Province.	13,057	(i) 236	(j)	..	236	1·8	(h) Excludes 22 square miles not under the control of the Forest Department.
Ajmer	2,767	142	(k)	..	142	5·1	(i) Excludes 14 square miles of military and civil reserved forests.
Baluchistan (portions under British Administration).	54,228	313	..	472	785	1·4	(j) 121 square miles of civil protected forests are not shown.
Andamans and Nicobars	3,143	85	..	2,122	2,207	70·2	(k) There are only 115 acres of protected forests in Ajmer.
Madras	142,261	18,877	..	(l) 762	19,639	13·8	(l) Reserved lands.
Bombay (including Sind)	123,020	11,949*	484*	..	12,433	10·1	* Excludes forests in charge of the Revenue Department.
Total 1914-15 ..	1,079,149†	97,580	10,405	141,882	249,867	23·15	
„ 1913-14 ..	1,079,638‡	96,297	8,390	140,925	245,612	22·7	
„ 1912-13 ..	1,079,163‡	96,867	8,492	133,564	238,923	22·1	
„ 1911-12 ..	1,071,051‡	96,148	8,496	138,316	242,960	22·7	
„ 1910-11 ..	1,071,010‡	96,387	8,507	138,584	243,478	22·7	† Excludes 575 square miles for the Delhi Province and 25 square miles for the British Pargana of Manpur (Central India).
							‡ Includes the area of the Shan States, 54,728 square miles. The forests of these States are under the control of the Forest Department.

STATE

Progress in for

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.					
				Areas.			Expenditure incurred.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
Bengal	4,888	..	4,888	..	..	..	..	..	..
United Provinces..	3,962	33	3,995	144	..	144	..	..	..
Punjab	1,910	5,222	7,132	30	..	30	..	..	..
Burma	27,386	..	27,386	891	..	891	3,996	..	3,996
Bihar and Orissa ..	1,727	..	1,727	..	..	..	..	..	..
Assam	4,382	..	4,382	146	..	146	4,631	..	4,631
Central Provinces..	19,684	..	19,684	29	..	29	..	..	..
Coorg	520	..	520	..	..	..	..	..	..
North-West Frontier Province.	250	121	371	..	..	..	..	..	..
Ajmer	..	..	..	..	..	..	..	..	..
Baluchistan ..	313	..	313	..	..	..	..	..	..
Andamans ..	85	..	85	..	..	..	..	..	..
Madras	18,833	..	18,833	45	..	45	135	..	135
Bombay ..	14,813	1,033	15,846	6	1	7	..	..	..
Total 1914-15 ..	98,753	6,409	105,162	1,291	1	1,292	8,762	..	8,762
„ 1913-14 ..	100,893	6,414	107,307	692	..	962	9,193	..	9,193
„ 1912-13 ..	97,661	6,088	103,749	986	..	986	7,093	..	7,093
„ 1911-12 ..	97,407	6,090	103,497	310	..	310	19,512	..	19,512
„ 1910-11 ..	90,281	6,281	96,862	843	2	845	11,676	..	11,676

MENT II.

est settlements.

AREA UNDERGOING SETTLEMENT.								
AT COMMENCEMENT OF THE YEAR.			TAKEN IN HAND DURING THE YEAR.			EXPENDITURE INCURRED DURING THE YEAR.		
Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
26	..	26	..	..	..	155	..	155
2	1,136	1,138	..	2,038	2,038	..	1,29,485	1,29,485
..	205	205	..	..	..	..	..	..
487	..	487	548	..	548	22,922	..	22,922
110	..	110	..	..	..	..	..	..
146	..	146	580	..	580	..	..	..
38	..	38	13	..	13	770	..	770
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
16	..	16	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
592	..	592	4	..	4	4,251	..	4,251
14	..	14	10	..	10	..	..	..
1,431	1,341	2,772	1,155	2,088	3,193	28,098	1,29,485	1,57,583
1,342	231	1,573	1,434	..	1,434	1,60,714	..	1,60,714
1,220	231	1,451	1,025	..	1,025	9,724	..	9,724
1,739	205	1,944	634	248	882	19,149	43,485	62,634
3,436	205	3,641	5,692	..	5,692	17,992	..	17,992

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	124	961	564	1,649	235	1,126	3,010	2,031	10,691
United Provinces ..	1,651	2,134	2,929	6,714	4,532	2,834	14,080	43,065	9,569
Punjab	5	1,690	7,593	9,288	34	1,222	10,544	89	3,809
Burma	723	2,369	15,707	18,799	398	3,159	22,356	9,318	18,413
Bihar and Orissa ..	104	3,388	283	3,775	..	263	4,038	47	1,455
Assam	77	1,509	96	1,682	20	1,726	3,428	5,055	10,694
Central Provinces ..	103	10,271	21,761	32,135	64	3,250	35,449	2,697	19,865
Coorg	..	..	475	475	5	56	536	..	153
North-West Frontier Province.	..	49	728	777	..	139	916	..	363
Ajmer	..	6	238	243	..	158	401	..	191
Baluchistan	..	105	355	460	..	77	537	..	1
Andamans ..	..	12	38	50	..	86	136	..	62
Madras	246	19,433	14,965	34,644	574	1,772	36,990	8,280	23,862
Bombay	1,095	13,164	22,932	37,191	1,276	3,030	41,498	4,724	4,563
Total 1914-15 ..	4,128	55,091	88,664	147,882	7,138	18,898	173,919	75,306	103,691
„ 1913-14 ..	1,689	51,971	90,860	144,700	3,185	17,346	165,051	52,179	97,765
„ 1912-13 ..	2,200	53,881	89,557	146,338	4,301	18,025	167,963	51,150	85,687
„ 1911-12 ..	1,923	52,597	90,954	145,473	4,318	18,284	164,593	45,250	92,646
„ 1910-11 ..	1,942	57,929	86,320	146,191	4,393	18,214	168,798	37,636	85,491

STATEMENT IV.

Forest survey operations.

PROVINCE.	Forest surveyed.	NATURE OF SURVEY OPERATIONS. 1" Detail Survey. Area.	1" Detail Survey. Cost rate.	2" Detail Survey. Area.	2" Detail Survey. Cost rate.	4" Detail Survey. Area.	4" Detail Survey. Cost rate.	Total area of Detail Survey. 1914-1915.	Total area of Detail Survey. Total up to date.	Expenditure of the year including mapping and publishing charges debitable to Forests.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq.m.	Sq. m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	3,265	..	
United Provinces ..	Haldwani ..	..	..	..	..	..	..	..	4,139	(b1) 9,222	(a) 104 linear miles of boundaries have been traversed on the 4" scale.
	Naini Tal (a)	..	..	..	..	..	..	..			(b) 398 linear miles of boundaries have been traversed on the 4" scale.
	Ramnagar(a)	..	..	..	..	..	..	..			(b1) Includes Rs. 8,845 cost of work on Kumaon and Ramnagar Forests debitable to Forest Department.
Punjab	....	..	..	..	..	..	..	..	4,365	(c) 100	(c) Mapping and publishing charges of the Forest Divisional map of Jhelum, sheet No. 3.
Burma	Mansi (d) ..	..	..	..	..	..	..	..	15,627	(h) 4,806	(d) 62 linear miles of boundaries have been traversed on the 4" scale.
	Myitkyina (e)	..	..	(i) 48	40·8	..	..	176			(e) 52 linear miles of boundaries have been traversed on the 4" scale.
	Katha (f) ..	..	..	128							(f) 143 linear miles of boundaries have been traversed on the 4" scale.
	Mandalay (g)	..	..	..	..	..	..	..			(g) 195 linear miles of boundaries have been traversed on the 4" scale.
Bihar and Orissa ..	Singbhum and Chaibassa.	..	..	..	..	..	..	..	1,762	..	(h) Rs. 4,300 on account of cost of 115 linear miles of boundary traversing of the Baw and Baw extension reserved forests, specially surveyed for the Forest Department and Rs. 506 on account of drawing and publishing charges for Thingadar and Pataien Working Circle maps.
Assam	Kamrup ..	..	..	..	..	..	..	..	3.060	(k) 10,093	(i) 102 linear miles of boundaries have been traversed on the 4" scale.
	Darrang ..	..	..	..	..	..	..	..			(j) 143 linear miles of boundaries have been traversed on the 4" scale.
	Nowgong ..	..	..	..	..	..	..	469			(k) Cost of survey of Upper Dehing reserve (Western block) specially surveyed for the Forest Department.
	Sibsagar ..	85	57·2	(j) 332	57·2	31	57·2				
	Lakhimpur	..	..	21							
Central Provinces ..	Berar ..	..	..	(l) 11	12·6	(l) 3	12·6	14	19,446	(m) 1,758	(l) 51 linear miles of boundaries have been traversed on the 4" scale.
Coorg	..	..	..	..	..	..	..	..	478	(n) 461	(m) Cost of mapping and publishing Berar Taluk maps as well as 3 Working Plan maps of Bilaspur.
North-West Frontier Province.	..	..	..	..	..	..	..	..	445	(o) 108	(n) Cost of mapping and publishing 3 Working Plan maps.
Ajmer	..	..	..	..	..	..	..	..	144	..	(o) Cost of mapping and publishing Index map of Hazara Forest Division.
Baluchistan ..	..	..	..	..	..	..	..	..	227	..	(p) 93 linear miles of boundaries have been traversed on the 4" scale.
Andamans ..	..	..	..	(p) 225	93·0	..	..	225	527	(q) 20,927	(q) Cost of special survey of the Middle and South Andamans.
Madras	North Arcot	..	..	42	16·3	..	..	51	15.379	(r) 1,165	(r) Cost of mapping and publishing Forest Divisional map of Kollegal and North, South and Central Coimbatore.
	Kollegal ..	..	..	..							
	Chingleput ..	..	..	9							
Bombay	East Khandesh.	..	..	(rr) 10	12·6	..	..	10	12,983	..	(rr) 27 linear miles of boundaries have been traversed on the 4" scale.
Total 1914-15 ..	..	85	..	826	..	34	..	945	81,847	(s) 48,640	(s) Cost of mapping, publishing and special surveys only.
„ 1913-14 ..	..	312	..	877	..	22	..	1,211	80,902	(t) 42,417	Excludes Forest Map office Head Quarters charges Rs. 43,631.
„ 1912-13 ..	..	59	..	793	..	..	..	852	79,691	(u) 2,872	(t) Excludes Forest Map office Head Quarters charges Rs. 39,050. (u) Excludes Forest Map Office Head Quarters charges Rs. 36,220.
„ 1911-12 ..	..	33	..	873	..	..	..	906	78,839	(v) 1,827	(v) Excludes Forest Map Office Head Quarters charges Rs. 38,592.
„ 1910-11 ..	..	395	..	446	..	..	..	841	77,933	(w) 1,926	(w) Excludes Forest Map Office Head Quarters charges Rs. 39,171.

STATEMENT V.

Progress made in Working-plans.

PROVINCE.	Areas for which Working-plans have been [illegible]		Areas for which Working-plans are [illegible]		Areas for which Working-plans have still to be taken in hand.	Areas for which Working-plans are not at present required.	Total forest area as in Statement I.	Percentage of area under Working-plans to the total forest areas.	REMARKS.
	At [illegible] of the year.	During the year.	At [illegible] of the year.	Taken in hand during the year.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.		
Bengal ..	(a) 4,965	..	..	..	1,610	(b) 4,637	10,612	47	(a) Excludes 17 sq. miles of other reserves.
United Provinces	4,076	..	5	8	3,367	31	7,487	54	(b) Excludes 54 sq. miles of other protected forests.
Punjab ..	(c) 3,885	..	723	..	163	(c) 3,466	8,237	47	(c) Revised area.
Burma ..	(c) 7,932	957	2,149	25	(c) 9,399	121,904	142,366	6	
Bihar and Orissa	1,460	..	..	..	6	(d) 1,324	2,790	52	(d) Excludes 994 sq. miles of other protected forests not under the management of the Forest Department.
Assam ..	1,134	..	..	..	1,912	(e) 19,700	(e) 22,746	5	(e) Includes 18,218 sq. miles of unclassed State forests.
Central Provinces	13,516	1,260	2,414	..	364	2,113	19,667	75	
Coorg.. ..	207	..	..	313	..	..	520	40	
North-West Frontier Province.	236	..	..	..	..	..	236	100	
Ajmer ..	140	..	..	..	2	..	142	99	
Baluchistan ..	..	..	..	..	313	472	785	..	
Andamans ..	708	..	..	..	85	1,414	2,207	32	
Madras ..	(c) 7,985	329	1,752	1,169	(c) 6,650	1,754	19,639	42	
Bombay ..	6,623	216	912	1	1,119	3,270	12,433	55	
Total 1914-15 ..	52,867	2,762	7,955	1,516	24,990	159,485	249,867	22·3	
„ 1913-14 ..	50,601	3,325	8,978	2,791	20,663	159,254	245,612	22	Unclassed forest areas transferred from column (6) to column (7).
„ 1912-13 ..	50,854	868	9,017	3,415	20,102	154,667	238,923	19	
„ 1911-12 ..	50,318	574	8,944	2,332	159,188	21,604	242,960	19	
„ 1910-11 ..	49,144	1,039	5,946	4,641	157,067	25,641	243,478	20	

NOTE.—Working-plans under revision should be included in column (2).

STATEMENT VI.

Expenditure on communications and buildings.

PROVINCE.	New Works.		Repairs.		Other Works.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	39 254	12,863	22,789	26,124	8,891	(a) 109,92
United Provinces.. ..	56,927	26,928	39,102	67,526	15,882	206,365
Punjab	56,404	33,293	13,129	12,912	5,253	120,991
Burma	89,869	79,570	68,615	65,242	21,101	324,397
Bihar and Orissa ..	31,755	24,448	10,233	12,489	4,667	(b) 83,592
Assam	54,954	(c) 39,961	(d) 18,158	30,683	11,385	155,141
Central Provinces ..	50,347	56,776	27,442	33,555	25,446	193,566
Coorg	1,602	7,001	4,061	3,962	1,465	18,091
North-West Frontier Province.	1,765	1,198	2,067	3,253	232	8,515
Ajmer	..	11	114	215	392	732
Baluchistan	..	..	251	..	..	251
Andamans	2,556	..	1,633	869	..	5,058
Madras	99,327	54,006	50,442	71,213	17,767	292,755
Bombay	74,631	39,743	17,711	47,553	9,877	189,515
Total 1914-15 ..	559,391	375,798	275,747	375,596	122,358	17,08,890
,, 1913-14 ..	531,607	511,490	261,595	337,873	123,700	18,16,265
,, 1912-13 ..	578,632	343,091	243,413	289,256	134,231	15,88,623
,, 1911-12 ..	469,082	304,117	226,108	259,781	134,501	13,94,489
,, 1910-11 ..	470,257	348,784	212,482	242,365	127,048	14,00,936

(*a*) This excludes (1) Pay of rest house-keepers, Rs. 1,883.
(2) Cost of land acquired, Rs. 147.
(*b*) Excluding Rs. 212 unallotted under "Roads, etc."
(*c*) Exclusive of Rs. 355 charged on account of railway fare, clothing, etc., of Hazaribagh coolies.
(*d*) Exclusive of pay of chaukidars, *viz.*, 622.

STATEMENT VII.

Breaches of forest rules.

Province.	Cases pending from 1913-1914.	New cases of the year: Injury to forest by fire.	New cases of the year: Unauthorised felling or any illegal removal of wood and minor forest produce.	New cases of the year: Grazing without permission, or in tracts in which grazing is prohibited.	New cases of the year: Other offences.	New cases of the year: Total new cases of the year.	Total cases.	Disposed of during the year: Convictions. Cases.	Convictions. Persons.	Acquittals. Cases.	Acquittals. Persons.	Total. Cases.	Total. Persons.	Cases pending at close of year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9).	(10)	(11)	(12)	(13)	(14)	(15)
Bengal A.	15	1	188	36	45	270	284	241	862	18	151	259	1,013	24
Bengal B.	71	6	719	538	48	1,311	1,383	1,337	2,198	..	..	1,337	2,198	46
Bengal C.	1	35	141	49	29	254	255	..	..	..	..	..	..	..
Total ..	87	42	1,048	623	122	1,835	1,922	1,578	3,060	18	151	1,596	3,211	70
United Provinces A.	32	12	94	44	31	181	213	164	359	25	69	189	428	24
United Provinces B.	323	70	2,306	1,303	94	3,773	4,096	3,401	11,212	127	191	3,528	11,403	568
United Provinces C.	..	67	336	20	13	436	436	..	..	..	..	..	..	..
Total ..	355	149	2,736	1,367	138	4,390	4,745	3,565	11,571	152	260	3,717	11,831	592
Punjab A.	196	24	524	284	82	914	1,110	823	1,737	92	337	915	2,074	172
Punjab B.	6	7	3,606	4,677	161	8,451	8,457	8,450	12,048	..	..	8,450	12,048	7
Punjab C.	..	250	111	9	1	371	371	..	..	..	..	..	..	..
Total	202	281	4,241	4,970	244	9,736	9,938	9,273	13,785	92	337	9,365	14,122	179
Burma A.	261	6	652	29	163	850	1,111	726	1,355	117	236	843	1,591	220
Burma B.	428	19	2,831	121	1,160	4,131	4,559	3,749	5,716	37	74	3,786	5,790	663
Burma C.	..	13	30	2	..	45	45	..	..	..	..	..	..	..
Total ..	689	38	3,513	152	1,323	5,026	5,715	4,475	7,071	154	310	4,629	7,381	883
Bihar and Orissa A.	20	16	147	15	55	233	253	183	714	23	114	206	828	46
Bihar and Orissa B.	31	2	765	113	37	917	948	877	2,583	8	16	885	2,599	63
Bihar and Orissa C.	..	247	8	..	..	255	255	..	..	..	..	..	..	..
Total ..	51	265	920	128	92	1,405	1,456	1,060	3,297	31	130	1,091	3,427	109
Assam A.	42	..	145	54	72	271	313	188	498	49	225	237	723	76
Assam B.	43	2	366	62	147	577	620	533	1,310	..	..	533	1,310	87
Assam C.	..	6	..	..	..	6	6	..	..	..	..	..	..	..
Total ..	95	8	511	116	219	854	930	721	1,808	49	225	770	2,033	163
Central Provinces A.	32	11	101	160	29	310	342	254	739	60	323	314	1,062	28
Central Provinces B.	1,335	71	5,170	5,980	587	11,808	13,143	11,510	33,995	8	68	11,518	34,063	1,625
Central Provinces C.	..	182	213	39	4	438	438	..	..	..	..	..	..	..
Total ..	1,367	264	5,484	6,188	620	12,556	13,923	11,764	34,734	68	391	11,832	35,125	1,653
Coorg A.	3	..	2	2	5	9	12	7	13	2	6	9	19	3
Coorg B.	..	..	4	2	1	7	7	7	..	..	..	7	..	..
Coorg C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	3	..	6	4	6	16	19	14	13	2	6	16	19	3
North-West Frontier Province A.	38	1	58	36	..	95	133	61	(a) 137	14	57	75	(a) 194	56
North-West Frontier Province B.	..	1	839	877	8	1,725	1,725	1,725	(b) 2,962	..	..	1,725	(b) 2,962	..
North-West Frontier Province C.	..	7	23	4	..	34	34	..	..	..	..	..	..	..
Total ..	38	9	920	917	8	1,854	1,892	1,786	3,099	14	57	1,800	3,156	56

(a) And 1 village (number of persons not given).
(b) And 12 villages (number of persons not given).

STATEMENT VII—*contd.*

Breaches of forest rules—contd.

Province.		Cases pending from 1913-14.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Totals.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer	A.	1	1	14	8	1	24	25	20	41	1	4	21	45	4
	B.	91	1	365	589	1	956	1,047	1,027	1,786	8	18	1,035	1,804	12
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		92	2	379	597	2	980	1,072	1,047	1,827	9	22	1,056	1,849	16
Baluchistan ..	A.	6	3	13	5	2	23	29	20	43	1	24	21	67	8
	B.	3	..	21	25	1	47	50	50	92	..	..	50	92	..
	C.	..	3	2	..	..	5	5	..	..	..	..	..	..	..
Total ..		9	6	36	30	3	75	84	70	135	1	24	71	159	8
Andamans	A.	..	..	7	..	..	7	7	6	14	1	2	7	16	..
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	..	7	..	..	7	7	6	14	1	2	7	16	..
Madras	A.	1,795	27	4,069	2,021	389	6,506	8,301	6,207	18,228	530	1,877	6,737	20,105	1,420
	B.	3,945	62	15,864	7,112	1,087	24,125	28,070	18,006	38,717	2,330	5,976	21,236	44,693	4,780
	C.	..	788	716	362	44	1,910	1,910	..	..	..	..	..	..	..
Total ..		5,740	877	20,649	9,495	1,520	32,541	38,281	25,113	56,945	2,860	7,853	27,973	64,798	6,200
Bombay	A.	313	176	489	241	98	1,004	1,317	927	2,230	140	381	1,067	2,611	246
	B.	1,004	193	8,026	7,496	1,000	16,715	17,719	16,780	34,759	..	..	16,780	34,759	935
	C.	32	1,324	2,089	38	52	4,103	4,135	..	..	..	..	4,068	..	66
Total ..		1,349	1,693	11,204	7,775	1,150	21,822	23,171	17,707	36,989	140	381	21,915	37,370	1,247
Grand Total ..	A.	2,754	278	6,503	2,044	972	10,697	13,451	9,827	26,970	1,073	3,806	10,900	30,776	2,327
	B.	7,280	434	40,882	28,895	4,332	74,543	81,823	68,352	1,47,378	2,518	6,343	70,870	153,721	8,786
	C.	33	2,022	4,269	523	143	7,857	7,890	..	..	..	..	4,068	..	66
Total 1914-15 ..		10,067	3,634	51,654	32,362	5,447	93,097	103,164	78,179	174,348	3,591	10,149	85,838	184,497	(e) 11,179
„ 1913-14 ..		9,052	4,012	50,899	33,938	5,541	94,390	101,531	83 026	174,084	1,114	4,139	88,411	178,223	(d) 10,084
„ 1912-13 ..		8,953	3,108	46,501	28,052	5,294	82.940	90,162	74,137	161,925	1,279	4,916	75,416	166,841	(c) 9,114
„ 1911-12 ..		7,773	4,182	45,279	27,176	4,753	81,386	89,163	69,220	153,676	1,831	6,126	71,051	154,400	(b) 8,859
„ 1910-11 ..		7,632	4,213	38,646	27,306	4,006	74,164	81,796	6°,578	140,817	1,290	4,384	64,870	145,202	(a) 7,686

N. B.—A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.

(*a*) Excludes 7,285 undetected cases and 1,955 cases struck off.
(*b*) „ 7,454 „ „ 1,7 9 „ „
(*c*) „ 3,563 „ „ 2,069 „ „
(*d*) „ 1,116 „ „ 1,910 „ „
(*e*) „ 3,756 „ „ 2,391 „ „

STATEMENT VIII.

Area protected from fire.

Province.	Area in square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected.		Average of past five years to 1913-14.	1914-15.	
Bengal	719	709	14·8	1·5	1·4	
United Provinces	3,809	3,774	89·4	2·4	0·9	
Punjab	1,051	1,000	48·5	2·0	4·9	
Burma	3,379	3,287	11·9	3·8	2·7	
Bihar and Orissa	(a) 1,693	(a) 1,497	98·0	(b)	11·6	(a) Excludes protected forests under fire protection.
Assam	1,440	1,426	31·8	2·3	1	
Central Provinces	11,705	11,518	59·5	3·3	1·6	(b) Refers to the old Province of Eastern Bengal and Assam.
Coorg	134	133	25·8	2·2	·7	
North-West Frontier Province	81	51	34·3	3·0	37·0	
Ajmer	141	141	99·3	0·3	..	
Madras	(c) 15,529	(c) 14,853	82·3	7·3	4·4	(c) Includes partially protected forests.
Bombay	10,522	10,098	88·0	4·7	4·0	
Total 1914-15	50,203	48,487	51·4	4·5	3·4	
„ 1913-14	49,970	47,983	51·9	4·6	4·0	
„ 1912-13	51,659	49,833	53·3	5·2	3·5	
„ 1911-12	51,182	48,333	53·2	5·6	5·5	
„ 1910-11	50,712	48,718	52·6	5·8	3·9	

STATEMENT IX.

Causes of forest fires.

Province.	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the Fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
Bengal	..	..	9	1	5	..	..	..	23	8·7	37	9·7
United Provinces ..	15	1·6	18	2·5	51	5·1	23	4·8	41	20·8	148	34·8
Punjab	2	..	40	3	82	11·5	160	49·3	18	1·1	302	64·8
Burma	19	15·8	31	2·8	49	15·7	40	18·2	43	39·2	182	91·7
Bihar and Orissa ..	8	..	7	1·2	20	1·3	42	8·4	65	192·2	142	203·1
Assam	1	..	11	7·5	5	6·8	3	..	3	..	23	14·3
Central Provinces ..	38	18·1	20	14 6	81	44·3	18	9·9	109	99·4	266	186·3
Coorg	..	..	..	..	..	..	1	..	1	..	2	..
North-West Frontier Province. ..	..	..	5	1	10	..	45	30·1	..	..	60	31·1
Ajmer	..	..	..	..	..	..	..	..	..	..	..	..
Baluchistan	..	..	..	..	3	..	..	..	3	..	6	..
Andamans	..	..	..	..	..	..	..	..	..	..	..	..
Madras	88	31·5	174	257·7	253	54·9	421	121·7	457	143·9	1,393	609·7
Bombay	84	29·9	104	81·7	509	110·6	174	55·3	846	158·8	(a) 1,717	436·3
Total 1914-15 ..	255	96·9	419	373·0	1,068	250·2	927	297·7	1,609	664·1	4,278	1681·8
,, 1913-14 ..	319	148·2	431	426·1	1,278	332·7	690	359·0	2,038	723·6	4,756	1,989·6
,, 1912-13 ..	227	79·8	409	212·7	870	207·5	606	392·3	1,531	999·4	3,643	1,891·6
,, 1911-12 ..	281	131·5	451	487·5	1,782	833·0	871	536·0	1,524	856·4	4,909	2,844·4
,, 1910-11 ..	260	90·8	480	344·5	1,746	687·4	765	400·7	1,652	681·0	4,903	2204·4

(a) Includes 36 fires in East Khandesh for the contractors.

STATEMENT X.

Area closed and open to grazing.

AREA IN SQUARE MILES.

Province.	Closed to all animals.		Closed to browsers, camels, goats or sheep.		Open to all animals.	Total area.	Remarks.
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	5,763	7	80	63	4,770	(1) 10,683	(1) Includes 17 square miles of other reserves and 54 square miles of other protected forests.
United Provinces.. ..	2,183	144	972	2	4,186	7,487	
Punjab	528	400	446	24	6,839	8,237	
Burma	22,095	4,274	514	6	115,477	142,366	
Bihar and Orissa ..	1,381	..	655	..	1,748	(2) 3,784	(2) Includes 994 square miles of other protected forests not under the management of the Forest Department.
Assam	3,836	73	471	..	18,366	22,746	
Central Provinces ..	3,069	475	10,443	..	5,680	19,667	
Coorg	73	447	..	..	..	520	
North-West Frontier Province.	80	26	83	..	47	236	
Ajmer	66	76	(a) ..	..	..	142	(a) The whole area is closed to browsers, camels, goats or sheep.
Baluchistan	211	2	22	..	550	785	
Andamans	85	..	..	..	2,122	2,207	
Madras	3,380	102	645	2	15,510	(3) 19,639	(3) Of the total area, 15,292 square miles were closed to goats only.
Bombay	2,271	240	8,644	331	3,574	(4) 15,060	(4) Includes 2,627 square miles not under the charge of the Forest Department.
Total 1914-15 ..	45,021	6,266	22,975	428	178,869	253,559	
„ 1913-14 ..	43,591	6,699	23,302	436	175,336	249,364	
„ 1912-13 ..	42,692	7,297	22,713	482	169,345	242,529	
„ 1911-12 ..	41,568	7,660	21,414	561	175,347	246,550	
„ 1910-11 ..	42,692	6,753	21,123	179	126,348	247,095	

STATE

Protection

Province.	Grazed on payment, number of animals.									
	At full rates.					At privileged rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	1,953	1,526	356	..	46	152	102,208	92	..	22
United Provinces ..	64,396	177,759	156,726	1,061	6,790	31,940	136,863	28,466	..	382
Punjab	20,031	42,574	309,687	8,266	972	60	11,406	306,985	1356	21
Burma	5,726	17,982	1,286	..	101	35	109	..	..	..
Bihar and Orissa ..	10,933	36,484	6,290	..	105	9,007	136,559	14,688	..	..
Assam	49,744	18,911	908	..	533	..	..	..	..	..
Central Provinces ..	286,785	987,899	555,104	127	5,720	109,305	1,561,437	3,538	..	184
Coorg	368	4,538	..	..	..	...	..	..	..	..
North-West Frontier Province.	2,170	2,218	378	..	26	..	..	..	..	..
Ajmer	1,176	7,027	..	..	4	5,165	29,559	..	..	2
Baluchistan	276	2,943	3,000	..	16	..	..	..	..	..
Madras	122,304	1,045,071	1,487,404	..	3	16,671	108,931	24,140	..	17,820
Bombay	35,977	(a) 130,389	97,245	2,292	4,093	135,228	(a) 1,187,293	176,905	..	5,991
Total 1914-15 ..	601,839	2,475,321	2,618,384	11,746	18,409	307,563	3,274,365	554,814	1356	24,422
„ 1913-14 ..	762,295	3,083,544	2,736,813	14,353	20,883	239,291	2,822,584	458,069	..	20,491
„ 1912-13 ..	696,074	2,875,482	1,515,205	12,185	22,998	347,069	3,844,768	1,921,392	..	3,364
„ 1911-12 ..	745,400	3,219,481	2,344,142	14,887	25,429	309,607	3,134,478	592,331	4	14,956
„ 1910-11 ..	715,773	2,987,791	2,466,844	17,796	23,411	249,155	2,797,571	579,293	6	4,511

(a) Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
BY RIGHT UNDER SETTLEMENT.					DURING PLEASURE OF GOVERNMENT OR OTHERWISE THAN UNDER SETTLEMENT.				
Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
..	..	..	..	..	395	1,562	..	..	1
21,855	138,545	42,342	..	216	5,596	12,369	653	..	59
136,964	643,832	1,311,504	276	180,618	59	8,225	40	2,905	8
43,229	256,333	2	..	133	6,551	70	..	..	2,765
30,866	99,834	21,000	..	..	141	80	..	..	..
..	340	..	..	..	71,038	411,433	76,779	..	325
..	375	..	..	..	1,046	236,498	429	..	94
..	545	..	..	..	..	8,456	..	..	..
6,973	9,753	..	..	..	5,971	10,433	..	..	461
..	..	..	..	..	209	814	..	..	..
..	3,310	53,226	1	1,193	..	..	..	..	..
159	2,559	4,509	..	762	6,652	51,764	29	..	1
3,558	11,165	61	2	70	92,174	(a) 402,054	4,718	446	2,750
246,601	1,166,591	1,432,644	279	182,992	189,832	1,143,758	82,648	3,351	6,464
243,388	1,108,288	1,435,051	310	183,445	175,601	1,057,944	88,729	4,083	8,212
264,744	1,216,629	1,464,902	310	183,344	152,684	1,051,168	89,651	3,554	9,075
272,550	131,860	1,439,407	308	183,481	219,129	1,237,379	85,157	2,289	7,325
246,675	1,106,321	1,404,539	310	183,176	151,658	957,507	84,121	10,948	5.041

STATEMENT XII.

Area of plantations and the cost of the year's work.

PROVINCE.	AREA IN ACRES AT CLOSE OF THE YEAR.			Cost of operations during the year.
	Regular plantations.	Taungyas.	Total.	
(1)	(2)	(3)	(4)	(5)
				Rs.
Bengal	(a) 1,376	225	1,601	2,398
United Provinces	(b) 14,416	..	14,416	24,007
Punjab	(c) 1,696	..	1,696	12,251
Burma	(d) 3,386	(e) 76,475	79,861	29,437
Bihar and Orissa	1,209	..	1,209	1,291
Assam	3,366	120	3,486	5,028
Central Provinces	(f) 666	(g) 5,268	5,934	551
Coorg	2,072	2,237	4,309	3,665
North-West Frontier Province	..	..	..	..
Ajmer	286	..	286	4
Baluchistan	46	..	46	1
Andamans	(j) 2,427	..	2,427	13,862
Madras	(h) 24,150	(i) 2,734	26,884	57,508
Bombay	(k) 8,055	..	8,055	22,998
Total 1914-15	63,151	87,059	150,210	1,73,001
„ 1913-14	55,755	87,830	143,585	1,84,837
„ 1912-13	55,143	85,636	140,779	2,31,754
„ 1911-12	60,634	87,983	148,617	2,25,850
„ 1910-11	59,092	87,089	146,181	2,64,725

(a) 15 acres excluded during the year.
(b) 391 acres excluded during the year.
(c) 7 acres excluded during the year.
(d) 14 acres excluded during the year.
(e) 496 acres excluded during the year.
(f) 3 acres excluded during the year.
(g) 1,379 acres excluded during the year.
(h) 3,277 acres excluded during the year.
(i) 48 acres excluded during the year.
(j) 6 acres excluded during the year.
(k) 6 acres excluded during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile.							
									Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft.	Rs.	C. ft	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft	Rs.
Bengal	19,554,703	3,04,565	593,139	14,269	1,393.907	25,091	21,541,749	3,43,925	4,015	63	347	8	346	6	2,030	32
United Provinces..	12,393,128	8,73,807	3,923,876	1,47,270	80,506	3,620	16,397,510	10,24,697	2,909	205	1,232	46	2,013	90	2,190	137
Punjab	10,860,576	10,63,743	17,511,065	11,52,436	5,668,714	56,500	34,040,355	22,72,679	5,016	491	4,421	291	2,685	27	4,133	276
Burma	16,501,603	5,02,527	..	..	37,318,910	3,40,347	53,820,513	8,42,874	584	18	..	..	327	3	378	6
Bihar and Orissa	3,021,197	90,228	15,177,209	1,47,614	53,896	209	18,252,302	2,38,057	1,749	52	14,278	139	..	..	6,542	85
Assam	1,744,817	89,180	..	..	10,617,073	7,24,520	12,361,890	8,13,700	385	20	..	..	583	40	543	36
Central Provinces	38,516,647	22,52,902	..	..	..	..	38,516,647	22,52,902	1,958	115	..	..	..	..	1,958	115
Coorg	523,860	28,034	168,170	231	..	..	692,030	28,265	1,007	54	..	..	..	..	1,331	54
North-West Frontier Province.	4,070,842 (a)	34,388	..	..	..	..	4,079,842	34,388	17,287	146	..	..	..	..	17,287	146
Ajmer	304,707	37,064	..	84	..	..	304,707	37,148	2,568	261	..	..	..	..	2,568	262
Baluchistan ..	55,468	43,361	..	..	214,792	45	270,260	43,406	177	139	..	..	455	·09	344	55
Andamans ..	632,240	1,710	..	..	1,123,460	2,085	1,755,700	3,795	7,438	20	..	..	529	·9	796	2
Madras	17,375,653 (b)	16,54,781	..	..	9,446,882	51,364 (c)	26,822,535	17,06,145	920	88	..	..	12,397	67	1,366	87
Bombay ..	40,503,479	11,21,308	774,303	..	261,637	..	41,539,419	11,21,308	3,390	94	1,600	..	..	..	3,341	90
Total 1914-15 ..	166,127,020	80,97,598	38,147,762	14,61,904	66,179,777	12,03,781	270,455,459	1,07,63,283	1,702	83	3,666	141	466	8	1,082	43
„ 1913-14 ..	185,988,403	82,11,087	26,629,457	13,53,532	82,025,463	12,34,286	294,643,323	1,07,98,905	1,931	85	3,174	161	582	9	1,200	44
„ 1912-13 ..	185,318,638	85,14,039	28,761,685	13,40,636	76,638,543	12,29,949	290,718,866	1,10,84,674	1,913	88	3,387	158	574	9	1,217	46
„ 1911-12 ..	166,538,603	80,50,904	28,351,270	14,70,953	62,304,550	11,12,869	257,194,423	1,06,34,726	1,732	84	3,337	173	450	8	1,059	44
„ 1910-11 ..	160,096,640	73,24,167	37,918,742	851,191	62,567,784	13,52,464	260,583,175	95,27,822	1,661	76	4,457	100	451	10	1,070	39

(a) Excludes lapsed or seized timber and Guzara forests.
(b) Includes leased forests.
(c) Outturn of reserved and unreserved lands.

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

Province.	Timber.					Fuel.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	45,920	6,727,257	6,080	..	6,779,857	4,424	12,861,990	1,895,478	..	14,761,892
United Provinces	478,576	4,921,991	128,084	3,126,170	8,654,821	656,128	3,046,956	302,317	2,837,288	7,742,689
Punjab	199,912	4,680,637	95,464	966,961	5,942,974	1,305,678	2,702,260	114,046	23,975,397	28,097,381
Burma	3,148,832	24,286,309	890,374	1,673,322	29,998,837	1,091,202	20,497,525	160,283	2,072,576	23,821,676
Bihar and Orissa	11,438	1,338,138	27,229	202,808	1,579,613	10,254	1,942,275	4,711	14,715,449	16,672,689
Assam	148,412	4,254,316	917,671	..	5,320,400	47,799	2,671,305	4,445,137	9,200	7,173,441
Central Provinces	1,292,527	6,461,466	220,393	65,525	8,039,911	1,480,265	26,564,644	1,239,970	1,191,857	30,476,736
Coorg	305,658	222,622	..	..	528,280	38,350	125,400	..	..	163,750
North West Frontier Province	4,223	3,195,707	17,956	3,344	3,221,135	72,308	277,909	426,592	479,756	1,256,655
Ajmer	..	3,933	..	742	4,675	10,068	345,840	4,124	..	360,032
Baluchistan	1,073	4,085	18,608	..	23,766	43,737	202,757	..	..	246,494
Andamans	565,468	20,181	28,800	25,300*	648,753	702,227	13,360	230,400	160,960*	1,106,947
Madras	717,558	3,726,590	219,650	220,311	4,884,109	1,607,441	19,744,466	4,324	582,195	21,938,426
Bombay	1,066,294	4,413,650	108,578	80,171	5,668,693	3,899,835	24,382,395	35,909	7,552,587	35,870,726
Total 1914-15	7,985,592	64,265,882	2,679,787	6,364,563	81,295,824	10,969,896	116,279,082	8,863,291	53,577,265	189,689,534
„ 1913-14	7,055,518	81,809,626	4,299,819	3,460,207	97,225,170	13,632,994	124,457,870	18,894,872	40,432,417	197,418,153
„ 1912-13	7,677,116	80,302,172	3,157,166	3,823,795	94,960,249	15,255,126	122,846,567	9,462,190	48,194,724	195,758,617
„ 1911-12	6,560,737	62,036,563	2,356,266	3,478,234	74,331,800	22,289,684	107,437,118	6,822,664	46,312,617	182,862,623
„ 1910-11	6,754,196	60,347,327	2,148,514	3,261,808	72,512,145	21,811,830	110,724,396	6,723,782	75,009,022	189,071,030

* By district officers.

STATEMENT XIV—*contd.*

Forest produce removed by different agencies—contd.

Part II.—Value of minor forest produce.

Province.	Bamboos.					Grazing and Fodder Grass.					Other Minor Produce.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	59	57,324	40	..	57,423	..	58,418	20,013	..	79,331	397	2,04,281	1,493	..	2,07,171
United Provinces ..	160	1,26,724	8	1,198	1,28,090	8,321	1,40,891	7,246	67,888	2,24,346	4,51,085	2,13,644	5,526	2,006	6,72,261
Punjab	3,012	11,970	12	94	15,088	25	2,04,340	6,990	1,960,456	21,71,811	26,809	14,027	105	44,839	85,780
Burma	261	1,97,374	238	15,011	2,12,884	1	10,950	55,876	2,65,802	3,32,629	2,076	2,15,126	3,526	76,633	2,97,361
Bihar and Orissa ..	13,124	21,472	408	21,898	56,902	..	9,443	118	85,021	94,582	16	62,903	111	23,447	86,567
Assam	132	26,403	4,975	..	31,510	..	79,192	3,19,541	127	3,98,860	2,403	1,60,868	2,23,196	..	3,86,467
Central Provinces ..	6,617	2,42,290	4,328	3,031	2,57,166	17,587	15,80,509	90,764	1,250	16,99,110	18,207	2,64,302	12,942	1,085	2,96,626
Coorg	..	(a) 1,248	..	..	1,248	..	1,679	2,114	136	3,929	..	23,088	..	..	23,088
North-West Frontier Province.	..	..	..	..	..	..	10,001	17,069	7,150	34,220	84	81	3	..	168
Ajmer	..	396	..	..	396	1,072	2,684	1,160	30,372	35,288	317	1,147	..	..	1,464
Baluchistan ..	..	..	..	..	..	..	1,496	..	41,470	42,966	..	385	55	..	440
Andamans ..	93	50	240	126	509	..	..	..	..	..	303	282	2,448	253	3,286
Madras	10,795	2,30,642	1,237	552	2,43,226	3	6,96,219	4,566	2,010	7,02,798	52,224	6,77,095	5,127	25,675	7,60,121
Bombay.. ..	56	1,06,167	503	6,377	1,13,163	1,225	4,50,021	13,551	3,35,849	8,09,646	31,152	1,14,813	2,015	50,519	1,98,499
Total 1914-15 ..	34,309	10,22,060	12,040	49,187	11,17,605	28,234	32,54,843	5,48,008	27,97,531	66,20,516	5,85,163	19,52,132	2,57,547	2,24,457	30,19,299
„ 1913-14 ..	47,367	11,70,509	29,401	58,276	13,05,553	1,62,578	29,40,611	6,07,302	26,70,618	63,81,109	5,08,868	21,04,757	2,80,140	2,17,914	31,11,679
„ 1912-13 ..	82,514	10,38,771	25,199	50,079	11,96,563	3,57,249	31,15,811	3,16,915	27,57,262	65,47,237	3,79,583	24,83,720	2,66,250	2,11,321	33,40,874
„ 1911-12 ..	1,23,106	10,71,367	14,503	80,405	10,89,471	3,40,149	25,90,178	3,51,957	29,13,447	61,95,628	4,59,916	21,26,552	2,57,512	3,05,647	31,49,627
„ 1910-11 ..	1,20,352	9,44,280	12,204	84,104	11,60,940	10,521	24,63,347	2,67,505	22,14,020	49,55,893	2,83,744	20,52,922	2,76,733	7,97,507	34,10,906

(a) Includes cost of 22,250 reeds.

STATEMENT XV.

Exports of forest produce.

Articles of forest produce.	Quantity in tons of 20 cwt. in the case of teak and other timbers, cubic tons.		Valuation at port of shipment in 1914-15.	
	Average of 5 years 1909-10 to 1913-14.	In 1914-15.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc, raw	523	1,641	93,30,219	5,686
Lac .. .. Button	1,738	1,276	12,47,039	977
Lac .. .. Shell	17,817	15,392	1,41,14,691	917
Lac .. .. Stick, seed and other kinds	2,163	1,666	6,95,704	418
Cutch and gambier	3,405	3,102	10,47,657	338
Myrabolams	69,938	58,213	52,56,751	90
Cardamums	152	184	8,15,534	4,432
Sandal, Ebony and other ornamental woods ..	(a)	(a)	5,48,844	..
Teak	49,850	44,626	84,72,783	190
Other timbers (excluding firewood)	6,848	2,721	2,20,185	81
Total in 1914-15 ..			4,17,49,407	
„ 1913-14 ..			4,54,25,118	
„ 1912-13 ..			4,67,80,613	
„ 1911-12 ..			3,96,36,932	
„ 1910-11 ..			4,26,71,543	

(a) Quantity (whether by weight or measurement) not recorded

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Grass and grazing.	Other minor produce.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	544	20,092	10,053	45,945	2,493	79,127
United Provinces	2,21,678	(a) 45,675	(a) 1,206	(a) 1,04,330	(a) 8,473	3,81,362
Punjab	52,822	9,52,339	106	1,986,648	44,944	30,36,859
Burma	2,28,911	14,034	18,627	3,21,678	76,781	6,60,031
Bihar and Orissa	18,759	1,60,025	22,306	85,143	24,623	3,10,856
Assam	61,844	60,871	4,975	3,19,541	2,23,196	6,70,427
Central Provinces	17,004	68,177	20,677	7,43,844	38,928	8,88,630
Coorg	..	..	..	2,250	..	2,250
North West Frontier Province	3,262	20,795	..	24,119	103	48,279
Ajmer	93	..	..	34,301	..	34,394
Baluchistan	7,810	..	..	41,470	370	49,650
Andamans	1,421	9,784	366	..	2,701	14,272
Madras	35,092	6,127	1,839	8,504	30,802	82,364
Bombay	3,29,190	9,13,736	21,940	6,49,787	2,32,534	2,147,187
Total 1914-15 ..	9,78,430	22,71,655	1,02,095	43,67,560	6,85,948	84,05,688
„ 1913-14 ..	9,13,245	19,27,965	1,13,992	37,72,590	6,77,202	74,04,994
„ 1912-13 ..	6,03,992	17,61,889	1,08,600	37,63,678	6,62,760	69,00,919
„ 1911-12 ..	5,21,934	17,85,668	1,23,517	37,62,335	7,94,414	69,87,868
„ 1910-11 ..	4,95,091	13,50,942	1,24,953	26,03,134	7,84,434	53,58,554

(a) Excludes Kumaon Circle, figures for which are not given under these heads.

STATEMENT XVII.

Details of revenue and expenditure for the Forest year 1914-15.

					Rs.
Gross Receipts ..	(a) Wood				2,15,44,940
	(b) Minor forest produce				22,97,384
	(c) Forest stamps and commutation fees for forest produce				1,11,326
	(d) Grazing				32,08,831
	(e) Revenue from forests not managed by Government				3,20,055
	(f) Miscellaneous				15,00,417
				Total Revenue ..	2,89,82,953
Expenditure ..	A Recurring ..	(a) Administration.	(i) Superior Staff..		36,61,677
			(ii) Subordinate Staff (including Rangers, Foresters and Guards).		34,07,179
			(iii) Office Establishments (including Contingencies).		19,46,095
		(b) Working ..	(1) Extraction		37,88,424
			(2) Roads and Buildings		17,39,044
			(3) Fire protection		5,89,642
			(4) Cultural operations		7,56,101
			(5) Live-stock, stores and plant ..		5,59,947
			(6) Working-Plans		46,455
			(7) Rent for leased forests ..		4,11,675
			(8) Miscellaneous		2,49,143
		(c) Expenditure on realization of revenue from forests not managed by Government.			10,820
		(d) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute.*			3,13,497
				Total ..	1,74,79,699
	B Extraordinary ..	(e) Forest Settlement			2,63,853
		(f) Forest Survey			95,285
		(g) Forest Demarcation			1,94,348
				Total ..	5,53,486
				GRAND TOTAL OF EXPENDITURE ..	1,80,33,185
				Net Revenue ..	1,09,49,768

*Expenditure under this head in provinces has been included in (a) Administration.

STATE

Summary of revenue and expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Bihar and Orissa.	Assam.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
REVENUE.							
I.—Timber and other produce removed from the forests by Government agency.	5,862	1,209	4,12,072	3,61,944	16,19,952	15,227	73,463
II.—Timber and other produce removed from the forests by consumers or purchasers.	6,185	12,42,027	25,98,399	9,14,141	74,91,504	5,23,074	6,04,556
III.—Drift and waif wood and confiscated forest produce.	..	8,091	8,896	53,752	2,14,701	836	21,123
IV.—Revenue from forests not managed by Government.	..	..	15,594	2,240	2,00,162	..	65,932
V.—Miscellaneous	..	53,169	1,00,274	1,05,928	1,81,375	10,642	67,803
Total Revenue ..	(a) 12,047	13,04,496	31,35,235	14,38,005	97,07,694	5,49,779	8,32,877
EXPENDITURE							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forest by Government agency.	1,948	904	7,17,040	81,073	9,71,188	6,102	41,765
II.—Timber and other produce removed from the forests by consumers or purchasers.	..	1,24,426	54,670	7,062	1,54,861	12,275	22,444
III.—Drift and waif wood and confiscated forest produce.	..	828	2,886	19,470	1,18,754	561	788
IV.—Revenue from forests not managed by Government.	..	..	4,404	..	262	..	5,115
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	..	781	1,85,685	87,298	..	..	63,486
VI.—Live-stock, stores, tools and plant	..	25,305	49,459	19,907	1,93,528	5,226	37,399
VII.—Communications and buildings ..	23	1,13,262	2,05,986	1,18,835	3,29,472	88,426	1,55,830
VIII.—Demarcation, improvements and extension of forests.	621	53,134	3,43,178	62,487	4,22,715	37,562	76,364
IX.—Miscellaneous	..	4,924	31,467	15,935	39,738	2,833	19,188
Total A.—Conservancy and Works ..	(b) 2,592	3,23,564	15,94,775	4,12,067	22,30,518	1,52,985	4,22,379
B.—Establishments.							
I.—Salaries	96,396	2,86,084	5,50,041	3,58,658	19,63,420	1,01,202	3,66,650
II.—Travelling Allowances	(d) 177	41,120	1,03,020	77,489	3,40,366	30,639	82,983
III.—Contingencies	313	20,167	69,904	41,088	1,46,143	9,545	26,327
Total B.—Establishments ..	(c) 96,886	3,47,371	7,22,965	4,77,235	24,49,929	2,31,386	4,75,960
Grand Total of Expenditure ..	99,478	6,70,935	23,17,740	8,89,302	46,80,447	3,84,371	8,98,339
Surplus	..	6,33,561	8,17,495	5,48,703	50,27,247	1,65,408	..
Deficit	87,431	..	..	..	..	..	65,462
Proportion of surplus to gross revenue..	..	49	26	38	52	30	..
Net revenue per square mile of forest area under control of Forest Department.	..	60	109	67	35	59	..

(a) Includes revenue derived from Indore and Bangalore.
(b) Includes expenditure on account of Indore and Bangalore.
(c) Includes expenditure on account of Indore.
(d) Includes expenditure on account of Delhi, Public Works.

MENT XVIII.

Forest Department in India for the financial year 1914-15.

Central Provinces.	Coorg.	North-West Frontier Province.	Ajmer.	Baluchistan.	Andamans.	Forest College and Research Institute.	Forest Surveys (Imperial).	Madras.	Bombay.	TOTALS
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1,93,173	1,26,694	20,213	3,843	9,866	3,33,677	..	..	5,76,848	15,15,593	52,69,636
28,92,170	60,982	2,07,137	24,479	3,066	4,010	..	..	29,16,475	29,72,446	2,24,60,651
2,166	..	545	43	..	..	..	..	24,937	4,277	3,39,367
5,307	..	1,310	..	6,010	..	..	..	..	3,544	3,00,099
1,79,713	11,561	8,808	2,805	116	1,561	8,617	..	4,23,277	1,84,382	13,40,031
32,72,529	1,99,237	2,38,013	31,170	19,058	3,39,248	8,617	..	39,41,537	46,80,242	2,97,09,784
1,00,424	28,994	18,752	1,452	4,500	1,19,682	..	..	1,46,371	6,26,031	28,66,226
1,62,017	..	448	555	22	252	..	..	1,28,347	48,430	7,15,809
158	..	197	1	..	9	..	..	3,433	222	1,47,307
..	..	..	..	123	..	..	..	..	..	9,904
..	..	32,454	..	..	..	..	..	23,350	29,791	4,22,845
46,285	13,139	873	90	228	17,651	29,815	..	1,31,979	19,510	5,90,394
2,26,583	17,392	8,984	920	235	5,138	31,607	..	2,98,421	2,08,834	18,09,948
2,09,148	41,115	1,279	1,572	86	42,126	..	42,353	4,85,894	1,38,886	19,58,518
29,637	1,035	2,733	370	222	1,935	30,850	..	11,991	43,098	2,35,956
7,74,252	1,01,675	65,720	4,960	5,416	1,86,793	92,272	42,353	12,29,786	11,14,800	87,56,907
9,40,700	61,504	48,234	14,233	18,056	63,096	1,94,929	..	12,24,056	11,64,416	75,41,675
1,24,997	9,672	7,260	1,512	2,139	6,938	19,934	..	2,58,882	1,49,905	12,57,033
96,620	2,982	4,379	1,028	389	1,229	23,956	..	1,47,961	58,804	6,50,835
11,62,317	74,158	59,873	16,773	20,584	71,263	2,38,819	..	16,30,899	13,73,125	94,49,543
19,36,569	1,75,833	1,25,593	21,733	26,000	2,58,056	3,31,091	42,353	28,60,685	24,87,925	1,82,06,450
13,35,960	23,404	1,12,420	9,437	..	81,192	..	..	10,80,852	21,92,317	1,15,03,334
..	..	..	..	6,942	..	3,22,474	42,353	..	..	..
40	12	47	30	..	24	..	..	27	47	39
68	45	476	66	..	37	..	..	55	176	..

STATE

Revenue, expenditure and surplus of the Forest Department

(I) REV

PROVINCE.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-00.	1900-01.	1901-02.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial *	6,370	6,688	5,240	2,680	4,980	2,690	41,000	19,130	17,540	6,090	2,463	3,484
Bengal †	7,27,392	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710	13,70,850	11,89,280	9,72,310	11,38,910	12,33,339	12,92,237
United Provinces	16,37,879	17,31,514	16,52,540	17,05,860	16,58,250	16,01,340	14,44,820	13,86,670	15,68,040	16,14,740	15,65,463	17,15,508
Punjab	8,34,370	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500	11,07,720	10,68,470	14,74,430	14,00,770	13,50,842	14,47,558
Burma	43,21,968	41,85,414	56,60,000	57,35,100	54,36,780	56,05,830	63,78,050	72,15,260	83,50,890	78,12,050	80,54,444	58,73,938
Bihar and Orissa	..	..	..	..	..	..	..	..	..	..	..	..
Assam ‡	3,26,703	3,36,129	3,92,830	4,88,500	4,35,090	4,25,030	4,36,440	3,84,820	3,98,180	5,68,100	5,49,521	5,12,963
Central Provinces	17,00,570	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140	11,80,400	14,34,940	12,97,490	12,65,614	15,79,116
Coorg	1,35,561	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910	1,55,070	1,62,410	1,37,596	1,70,242
North-West Frontier Province	..	..	..	..	..	..	..	..	..	..	..	13,012
Ajmer	15,266	19,790	14,890	14,620	12,840	15,640	12,370	15,540	14,420	10,270	10,646	6,865
Baluchistan	15,724	20,609	19,030	20,730	16,300	14,930	15,460	15,040	14,920	17,060	16,956	14,712
Andamans	1,58,326	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710	2,29,460	2,60,600	2,77,886	2,66,903
Imperial Forest College and Research Institute.	1,184	1,788	1,980	1,990	2,790	4,310	2,850	2,890	2,360	3,210	3,697	3,545
Forest Surveys (Imperial) ..	2,104	257	520	240	80	510	400	220	290	420	327	473
Total ..	98,83,507	1,04,38,145	1,14,07,580	1,19,71,490	1,11,44,820	1,14,52,140	1,25,20,470	1,30,42,340	1,46,32,850	1,42,92,120	1,44,68,794	1,29,00,556
Madras	17,05,408	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	23,03,330	21,36,490	21,10,520	23,02,290	23,40,170	25,43,430
Bombay	32,88,220	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670	30,32,710	26,16,660	22,95,150	24,15,200	29,61,529	23,79,729
GRAND TOTAL ..	1,49,67,135	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715
												(II) EXPENDITURE
Imperial *	85,414	65,788	1,07,270	80,840	84,950	80,410	78,960	84,300	85,460	96,550	83,578	79,639
Bengal †	4,14,004	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070	6,90,040	6,53,440	4,86,320	5,45,210	5,70,806	6,57,131
United Provinces	9,19,195	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860	9,06,340	9,17,850	9,72,030	9,42,380	9,63,439	10,08,739
Punjab	6,53,041	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7,23,300	7,71,940	8,55,340	12,11,460	8,87,343	9,38,335
Burma	13,88,789	16,98,980	18,05,000	18,62,500	19,17,990	19,33,600	21,28,820	21,96,610	24,26,190	24,47,440	26,54,717	26,46,457
Bihar and Orissa	..	..	..	..	..	..	..	..	..	..	..	..
Assam ‡	2,83,852	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010	2,88,830	3,05,360	3,57,140	3,47,972	3,29,112
Central Provinces	9,04,475	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860	11,65,490	11,09,400	12,75,820	11,65,866	12,00,904
Coorg	65,818	86,860	73,090	86,890	86,140	85,840	71,630	87,020	80,100	74,220	70,905	82,333
North-West Frontier Province	..	..	..	..	..	..	..	..	..	..	..	19,510
Ajmer	12,720	13,986	15,000	15,900	14,900	15,730	22,010	14,670	16,300	15,350	16,782	15,927
Baluchistan	29,450	30,407	55,620	63,730	40,910	41,770	29,770	27,330	27,760	28,680	29,254	24,480
Andamans	1,30,952	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600	2,47,340	1,38,400	1,40,940	1,40,137	2,04,667
Imperial Forest College and Research Institute.	35,191	44,317	50,400	65,530	65,080	67,950	67,380	60,920	63,370	73,550	71,238	76,290
Forest Surveys (Imperial) ..	24,324	26,882	22,160	27,900	29,840	29,950	31,970	33,950	33,970	33,980	33,991	33,730
Total ..	49,46,325	54,38,471	56,70,870	59,05,990	59,19,020	59,28,610	65,41,690	65,49,690	66,00,000	72,42,720	70,36,028	73,17,154
Madras	12,46,913	13,24,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,300	15,72,850	15,94,670	16,53,530	17,15,431	17,09,554
Bombay	18,69,887	19,31,457	19,04,970	20,71,940	20,67,920	19,58,390	19,69,160	20,73,190	18,39,250	21,28,430	24,08,581	17,19,680
GRAND TOTAL ..	80,63,125	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388
												(III) SURPLUS
Imperial *	—79,044	—59,100	—1,02,030	—78,160	—79,970	—77,720	—74,860	—65,170	—67,920	—90,460	—81,115	—76,055
Bengal †	3,13,388	3,66,623	3,63,270	3,97,570	3,89,280	4,52,640	6,80,810	5,35,840	4,85,990	5,93,700	6,62,533	6,35,106
United Provinces	7,18,684	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	5,38,480	4,68,820	5,96,090	6,72,360	6,02,024	7,06,769
Punjab	1,81,329	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530	6,19,010	1,89,310	4,63,499	5,09,223
Burma	29,33,179	24,86,434	38,55,000	39,22,600	35,18,790	37,62,230	42,50,130	50,18,650	59,24,700	53,64,610	53,99,727	32,27,481
Bihar and Orissa	..	..	..	..	..	..	..	..	..	..	..	..
Assam ‡	42,941	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990	92,820	2,10,960	2,01,549	1,83,851
Central Provinces	7,96,095	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430	98,280	14,910	3,25,540	21,670	99,748	3,78,212
Coorg	69,743	96,037	1,07,590	86,900	66,910	49,410	21,370	43,890	47,970	88,190	66,691	87,909
North-West Frontier Province	..	..	..	..	..	..	..	..	..	..	..	—6,498
Ajmer	2,546	5,813	—110	—1,280	—2,060	—90	—9,640	870	—1,880	—5,080	—6,136	—9,062
Baluchistan	—13,726	—9,888	—36,590	—43,000	—24,610	—26,840	—14,310	—12,290	—12,840	—11,620	—12,298	—9,768
Andamans	23,274	92,429	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370	91,060	1,19,660	1,37,749	62,236
Imperial Forest College and Research Institute.	—34,007	—42,559	—48,420	—63,540	—63,190	—63,640	—64,530	—52,030	—61,010	—70,340	—67,541	—72,745
Forest Surveys (Imperial) ..	—22,220	—26,625	—21,640	—27,660	—29,760	—29,440	31,570	—33,730	—33,680	—33,560	—33,664	—33,257
Total ..	49,37,182	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78,780	64,92,650	80,32,850	70,49,400	74,32,766	55,83,402
Madras	5,48,495	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960	7,69,030	5,63,640	5,15,850	6,48,760	6,24,739	8,33,876
Bombay	14,18,333	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550	5,43,470	4,54,900	2,86,770	5,52,948	6,60,040
GRAND TOTAL ..	69,04,010	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,84,930	86,10,453	70,77,327

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, Office Establishment and undistributable and petty local items and revenue and charges on

† Includes figures up to 1910-11 for districts subsequently transferred to Bihar and Orissa.

‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred to Bengal.

MENT XIX.

throughout India during the 25 financial years from 1890-91.

ENUE.

1902-03.	1903-04.	1904-05.	1905-06	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	PROVINCE.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
3,659	7,455	3,768	7,255	..	7,666	8,189	10,632	8,662	10,680	12,837	11,471	12,047	Imperial. *
12,56,247	10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11,84,845	10,80,640	11,67,444	11,22,442	16,00,601	16,16,111	13,04,496	Bengal. †
20,25,324	22,80,446	23,97,318	24,33,428	25,02,864	24,09,745	21,75,406	23,01,164	23,78,439	30,16,160	35,43,963	37,12,487	31,35,235	United Provinces.
15,86,408	17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,63:	12,17,988	13,10,077	12,39,033	13,54,943	14,38,005	Punjab.
67,39,053	82,6 :,535	89,59,756	1,03,29,869	98,12,519	86,63,989	19,92,032	93,58,077	1,00,70,117	99,67,594	1,09,22,393	1,14 25,430	97,07,694	Burma.
..	..	..	..	..	..	..	..	..	4,07,213	4,38,958	4,91,735	5,49,779	Bihar and Orissa.
5,80,200	6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,34,732	18,90,635	11,46,320	11,42,091	10,97,969	8,32,877	Assam. ‡
16,84,428	19,08,032	20,13,459	24,49,131	24,01,159	22,90,128	20,78,162	20,78,340	21,14,226	25,49,854	31,71,815	31,86,453	32,72,529	Central Provinces and Berar.
1,90,730	2,24,031	1,93,087	2,45,419	2,35,909	2,74,756	2,24,330	2,13,129	2,76,055	2,95,170	2,81,652	3,29,227	1,99,237	Coorg.
1,01,123	1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	1,58,171	2,37,183	2,66,741	2,38,013	North-West Frontier Province.
9,736	13,884	17,297	15,002	18,335	29,864	27,615	23,990	33,846	26,361	36,596	33,897	31,170	Ajmer.
19,336	18,363	22,555	21,481	21,195	24,829	23,305	18,729	23,212	20,117	20,159	19,988	19,058	Baluchistan.
3,26,035	4,32,381	6,29,796	5,82,511	6,07,027	2,19,822	2,02,018	2,50,477	4,16,773	5,22,160	4,40,925	4,45,811	3,39,248	Andamans.
3,252	3,038	3,557	3,080	4,579	6,137	4,680	4,909	4,080	5,550	7,611	5,806	8,617	Imperial Forest College and Research Institute
3,034	431	..	..	..	..	..	..	..	..	..	..	..	Forest Surveys (Imperial).
1,45,28,565	1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	1,98,06,819	2,05,57,869	2,31,04,817	2,39,98,069	2,10,88,005	Total.
26,13,819	26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	38,00,919	41,78,381	38,80,411	41,68,921	41,12,473	42,00,320	39,41,537	Madras.
23,29,156	27,51,539	30,20,558	38,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	43,30,569	49,92,519	51,03,156	46,80,242	Bombay.
1,94,71,540	2,22,16,747	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	2,90,57,359	3,22,09,809	3,33,01,545	2,97,09,784	GRAND TOTAL.
85,017	89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	94,714	1,04,162	99,296	99,478	Imperial. *
6,38,014	7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	7,06,374	6,60,794	6,40,157	6,70,935	Bengal. †
10,13,998	10,81,438	13,91,583	14,05,182	13,06,651	11,94,013	12,22,436	12,09,308	12,37,938	13,63,673	16,29,264	18,96,014	23,17,740	United Provinces
9,60,095	11,56,415	10,12,354	12,65,664	11,44,403	11,76,696	8,51,627	6,67,752	7,40,542	7,65,146	7,99,176	9,19,177	8,89,302	Punjab.
28,90,263	33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	38,42,799	41,31,162	41,38,584	42,74,901	46,80,447	Burma.
..	..	..	..	..	..	..	..	..	3,00,916	3,75,894	3,55,648	3,84,371	Bihar and Orissa.
3,27,498	4,25,484	5,03,656	5,93,910	7,07,860	8,00,373	8,01,349	10,12,541	10,87,340	8,41,013	8,08,911	9,10,240	8,98,339	Assam. ‡
12,57,288	12,80,966	13,20,615	13,07,153	13,42,898	15,83,407	17,53,307	15,36,852	15,89,533	18,38,379	19,46,735	19,53,129	19,36,569	Central Provinces and Berar.
89,437	92,191	83,820	95,748	1,02,855	1,04,819	99,595	1,07,822	1,07,679	1,21,174	1,61,544	1,78,514	1,75,833	Coorg.
54,086	60,603	74,958	95,258	93,650	88,400	81,413	77,391	72,492	89,436	1,22,173	1,31,023	1,25,593	North-West Frontier Province.
16,377	16,680	15,641	17,131	16,715	18,188	19,916	19,272	19,918	22,343	20,714	23,595	21,733	Ajmer.
23,240	21,607	24,672	25,743	26,322	31,258	36,586	26,549	26,387	28,947	28,527	25,310	26,000	Baluchistan.
2,81,702	2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	2,26,963	2,61,732	2,55,141	2,74,676	2,58,056	Andamans.
66,338	59,339	61,424	80,669	1,37,486	1,58,038	1,83,191	1,96,174	2,19,183	2,63,441	2,68,445	2,98,338	3,31,091	Imperial Forest College.
33,985	33,935	28,229	30,044	30,389	27,060	39,128	41,062	41,140	38,798	35,809	37,743	42,353	Forest Surveys (Imperial).
77,37,338	86,40,126	90,77,954	98,65,826	95,92,956	97,76,649	97,64,900	95,17,931	99,47,805	1,08,67,248	1,13,64,873	1,20,17,761	1,28,57,840	Total.
18,35,552	17,50,930	19,36,098	22,66,602	24,80,660	27,80,857	29,17,261	33,39,635	32,25,801	34,14,882	31,50,482	29,35,817	28,60,685	Madras.
16,76,441	17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	20,63,088	20,70,417	26,64,436	26,92,455	25,89,877	24,87,925	Bombay.
1,12,49,331	1,21,6 ,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,933	1,47,26,034	1,49,20,654	1,52,44,023	1,69,46,566	1,72,07,810	1,75,43,455	1,82,06,450	GRAND TOTAL.
—81,358	—81,800	—79,200	—76,512	—95,472	—92,538	—95,994	—93,700	—83,944	—84,034	—91,325	—87,825	—87,431	Imperial *
6,18,233	3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,159	4,16,068	9,39,807	9,75,954	6,33,561	Bengal. †
10,11,326	11,99,008	10,05,735	10,28,246	11,96,013	12,15,732	9,52,970	10,91,586	11,40,501	16,52,487	19,14,699	18,16,473	8,17,495	United Provinces.
6,26,313	5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	4,37,165	3,64,881	4,77,446	5,44,931	4,39,857	4,35,766	5,48,703	Punjab.
38,48,790	49,16,131	55,12,832	63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	58,36,432	67,83,809	71,50,529	50,27,247	Burma
..	..	..	..	..	..	..	..	..	1,06,797	63,064	1,36,087	1,65,408	Bihar and Orissa.
2,52,701	2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	3,05,307	3,33,180	1,37,729	—65,462	Assam. ‡
4,27,140	7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	4,91,488	5,24,693	7,11,475	12,25,080	12,33,324	13,35,960	Central Provinces and Berar.
1,01,293	1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	1,68,376	1,73,996	1,20,108	1,50,713	23,404	Coorg.
47,038	41,230	16,033	33,271	89,564	1,50,00	41,360	95,914	1,32,850	68,735	1,15,010	1,35,718	1,12,420	North-West Frontier Province.
—6,641	—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	13,928	4,018	6,882	10,302	9,437	Ajmer.
—3,904	—3,334	—2,117	—4,262	—5,127	—6,429	—13,281	—7,820	—3,175	—8,830	—8,368	—5,322	—6,942	Baluchistan.
44,333	1,66,260	2,78,365	2,46,526	3,11,891	62,555	21,077	65,318	1,89,810	2,60,428	1,94,784	1,71,135	81,192	Andamans.
—63,086	—56,301	—57,867	—77,589	—1,32,907	—1,51,901	—1,78,511	—1,91,265	—2,15,103	—2,57,891	—2,60,834	—2,92,532	—3,22,474	Imperial Forest College.
—30,951	—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	—38,798	—35,809	—37,743	—42,353	Forest Surveys (Imperial).
67,91,227	81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,826	98,59,014	96,90,621	1,17,39,944	1,19,80,308	82,30,165	Total.
7,78,267	9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	7,54,039	9,61,991	12,64,503	10,80,852	Madras.
6,52,715	9,75,602	11,16,754	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47,807	16,66,133	23,00,064	25,13,279	21,92,317	Bombay.
82,22,209	1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	1,21,10,793	1,50,01,999	1,57,58,090	1,15,03,334	GRAND TOTAL.

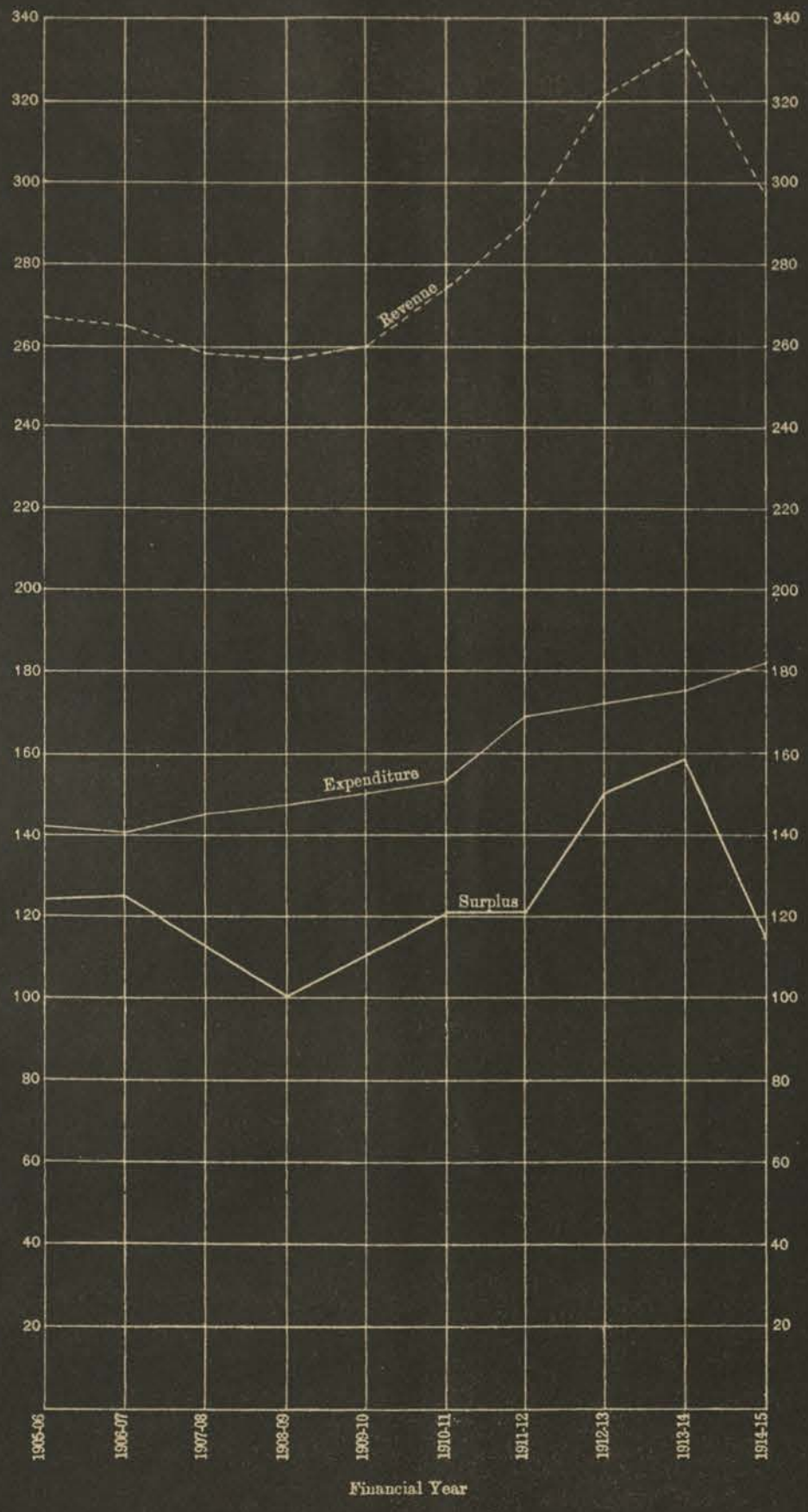
account of Indore and Bangalore, Excludes Home charges.

G. M. Press, Simla.—No. 60 R.&A.—10-10-16—390—M.B.G.

DIAGRAM SHOWING

ANNUAL FOREST REVENUE, EXPENDITURE & SURPLUS

For the 10 years 1905-06 to 1914-15



Reg: No. 703 D.D.D, 1916 (F.M.O.)-S.I-450

ANNUAL RETURN

OF

STATISTICS

RELATING TO

FOREST ADMINISTRATION

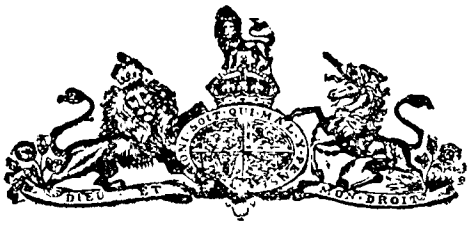
IN

BRITISH INDIA

FOR THE YEAR

1915-16.

IN
BOMBAY
RANCH
TIO



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APPENDIX.

Diagram showing annual forest revenue, expenditure and surplus for the 10 years 1906-07 to 1915-16.

STATEMENT I.

Area of forests under the control of the Forest Department.

Province. Name.	Area in square miles.	Forest area in square miles. Reserved.	Protected.	Unclassed State.	Total.	Percentage of forests to whole area of Province.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	78,875	(a) 4,871	(b) 1,711	4,030	10,612	13.5	(a) Excludes 18 square miles of reserved forest not under the management of the Forest Department.
United Provinces ..	106,725	(c) 5,170	2,288	35	7,493	7.0	(b) Excludes 54 square miles not under the control of the Forest Department.
Punjab	96,650	(d) 2,156	(e) 4,168	1,472	7,796	8.1	(c) Includes 160 square miles of leased forests.
Burma, including Shan States.	225,048	28,567	..	113,755	142,322	63.2	(d) Includes 365 square miles of leased forests but excludes 112 square miles of reserved forests not under the control of the Forest Department.
Bihar and Orissa ..	83,122	1,727	(f) 1,062	..	2,789	3.4	(e) Excludes 91 square miles not under the control of the Forest Department.
Assam	48,915	4,907	..	17,461	22,368	45.7	(f) Excludes 993 square miles not under the control of the Forest Department.
Central Provinces (including Berar).	99,948	19,666*	..	..	19,666	19.7	(g) Excludes 14 square miles of military and civil reserved forests.
Coorg	1,582	520	..	..	520	32.9	(h) 121 square miles of civil protected forests are not shown.
North-West Frontier Province.	13,184	(g) 236	(h)	..	236	1.8	(i) There are only 115 acres of protected forests in Ajmer.
Ajmer	2,767	142	(i)	..	142	5.1	(j) Reserved lands.
Baluchistan (portions under British administration).	54,228	313	..	472	785	1.4	* Excludes 22 square miles not under the control of the Forest Department.
Andamans and Nicobar	3,143	83	..	2,124	2,207	70.2	† Excludes forests in charge of the Revenue Department.
Madras	142,261	18,849	..	(j) 734	19,583	13.7	‡ Excludes 573 square miles for the Delhi Province and 25 square miles for the British Pargana of Manpur (Central India).
Bombay (including Sind).	123,033	11,998†	483†	..	12,481	10.1	
Total 1915-16 ..	1,079,481‡	99,205	9,712	140,083	2,49,000	23.100	§ Excludes 575 square miles for the Delhi Province and 25 square miles for the British Pargana of Manpur (Central India).
,, 1914-15 ..	1,079,149§	97,580	10,405	141,882	249,867	23.15	
,, 1913-14 ..	1,079,638‖	96,297	8,390	140,925	245,612	22.7	
,, 1912-13 ..	1,079,163¶	96,867	8,492	133,564	2,38,923	22.1	Includes the area of the Shan States, 54,728 square miles. The forests of these States are under the control of the Forest Department.
,, 1911-12 ..	1,071,051‖	96,148	8,496	138,316	242,960	22.7	

STATE

Progress in for

Province.	Areas already settled at the commencement of the year.			Areas finally settled during the year.					
				Areas.			Expenditure incurred.		
	Reserved forests.	Protected forests.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
Bengal	488	..	488	..	..	..	..	..	..
United Provinces ..	4,114	4	4,118	896	..	896	..	..	..
Punjab	1,910	4,055	5,965	1	205	206	..	..	..
Burma	28,232	..	28,232	336	..	336	1,149	..	1,149
Bihar and Orissa ..	1,727	..	1,727	110	..	110	..	..	..
Assam	4,528	..	4,528	386	..	386	4,550	..	4,550
Central Provinces ..	19,667	..	19,667	15	..	15	..	..	..
Coorg	..	..	..	..	..	..	..	..	..
North-West Frontier Province.	250	121	371	..	..	..	..	..	..
Ajmer	..	..	..	..	..	..	..	..	..
Baluchistan ..	313	..	313	..	..	..	..	..	..
Andamans ..	85	..	85	—*2	..	—*2	..	..	..
Madras	18,850	..	18,850	23	..	23	1,960	..	1,960
Bombay	13,977	1,046	15,023	15	1	16	..	..	..
Total 1915-16 ..	94,141	5,226	99,367	1,782	206	1,988	7,659	..	7,659
„ 1914-15 ..	98,753	6,409	105,162	1,291	1	1,292	8,762	..	8,762
„ 1913-14 ..	100,893	6,414	107,307	692	..	962	9,193	..	9,193
„ 1912-13 ..	97,661	6,088	103,749	986	..	986	7,093	..	7,093
„ 1911-12 ..	97,407	6,090	103,497	310	..	310	19,512	..	19,512

* Disforested during the year.

MENT II.

est Settlements.

AREA UNDERGOING SETTLEMENT.								
At commencement of the year.			Taken in hand during the year.			Expenditure incurred during the year.		
Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.
26	..	26	23	..	23	43	..	43
2,284	..	2,284	5	..	5	68,101	..	68,101
..	..	..	..	..	..	..	..	..
643	..	643	129	..	129	907	..	907
110	..	110	..	..	..	..	..	..
309	..	309	140	..	140	474	..	474
23	..	23	1	..	1	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
16	..	16	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..
557	..	557	10	..	10	6,981	..	6,981
13	..	13	9	..	9	..	..	..
3,981	..	3,981	3,17	..	317	76,506	..	76,506
1,431	1,341	2,772	1,155	2,088	3,193	28,098	1,29,485	1,57,583
1,342	231	1,573	1,434	..	1,434	1,60,714	..	1,60,714
1,220	231	1,451	1,025	..	1,025	9,724	..	9,724
1,739	205	1,944	634	248	882	19,149	43,485	62,634

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	41	871	776	1,688	198	1,124	3,010	348	8,093
United Provinces ..	3,566	2,228	4,358	10,152	2,181	2,157	14,490	58,004	9,053
Punjab	24	1,196	7,561	8,781	23	1,222	10,026	605	2,690
Burma	259	2,488	16,267	19,014	314	3,139	22,467	4,027	16,744
Bihar and Orissa ..	246	3,492	283	4,021	..	270	4,291	5,545	1,895
Assam	89	737	920	1,746	116	1,890	3,752	3,129	3,561
Central Provinces ..	52	8,007	23,963	32,022	71	3,252	35,345	912	11,727
Coorg	..	..	475	475	5	56	536	..	129
North-West Frontier Province.	..	129	648	777	..	139	916	..	647
Ajmer	..	4	239	243	..	158	401	..	140
Baluchistan ..	..	..	460	460	..	77	537	..	..
Andamans ..	..	6	31	37	..	77	114	..	29
Madras	118	17,644	15,423	33,185	538	1,882	35,605	4,700	16,902
Bombay	1,343	11,223	25,859	38,425	1,131	2,994	42,550	5,518	5,206
Total 1915-16 ..	5,738	48,025	97,263	151,026	4,577	18,437	1,74,040	82,788	76,816
„ 1914-15 ..	4,128	55,091	88,664	147,882	7,138	18,898	173,919	75,306	103,691
„ 1913-14 ..	1,689	51,971	90,860	144,700	3,185	17,346	165,051	52,179	97,765
„ 1912-13 ..	2,200	53,881	89,557	146,338	4,301	18,025	167,963	51,150	85,687
„ 1911-12 ..	1,923	52,597	90,954	145,473	4,318	18,284	164,593	45,250	92,646

STATEMENT IV.

Forest Survey operations.

Province.	Forest surveyed.	Nature of survey operations. 1st Detail Survey. Area.	1st Detail Survey. Cost rate.	2nd Detail Survey. Area.	2nd Detail Survey. Cost rate.	4th Detail Survey. Area.	4th Detail Survey. Cost rate.	Total area of detail survey. 1915-1916.	Total area of detail survey. Total up to date.	Expenditure of the year including maps and publishing charges debitable to Forests.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Sq.m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	3,265	..	
United Provinces ..	Southern Garhwal.	..	..	158	32·2	..	..				
	Naini Tal (*a*)	..	..	..	..	50	32·2	703	4,842	26,058	(*a*) 609 linear miles of boundaries have been traversed on the 4-inch scale.
	Ramnagar (*b*)	..	..	..	..	495	32·2				
Punjab	..	..	..	..	..	..	..	..	4,365	.	(*b*) 398 linear miles of boundaries have been traversed on the 4-inch scale.
Burma ..	Mansi (*c*) ..	..	..	47	54·2	..	..	222			(*c*) 62 linear miles of boundaries have been traversed on the 4-nch scale.
	Myitkyina(*d*)	..	..	175							
	Meiktila ..	..	..	169					16,388		(*d*) 154 linear miles of boundaries have been traversed on the 4-inch scale.
	Katha (*e*) ..	..	..	..	68·3			539			(*e*) 143 linear miles of boundaries have been traversed on the 4-inch scale.
	Mandalay (*f*)	..	..	116		126	68·3			18,296	(*f*) 195 linear miles of boundaries have been traversed on the 4-inch scale.
	Tenasserim ..	128	68·3	..							
Bihar and Orissa ..	Singhbhum and Chaibassa.	..	..	..	..	..	..	..	1,762	..	
Assam	Sibsagar (*g*)	..	..	(*h*) 472	58·3	..	..	472	3,532	..	(*g*) 143 linear miles of boundaries have been traversed on the 4-inch scale. (*h*) Excludes 1·51 square miles of unreserved land and 122 linear miles have been traversed on the 4-inch scale.
	Lakhimpur	..	..	(*i*)	..	..	..				
Central Provinces ..	Berar ..	..	..	54(*k*)	238·4	..	..	54	19,500	730 (*l*)	(*i*) 6 linear miles have been traversed on the 4-inch scale.
Coorg	..	..	..	..	..	..	..	..	478	..	(*j*) 51 linear miles have been traversed on the 4-inch scale.
											(*k*) 54 linear miles have been traversed on the 4-inch scale
North-West Frontier Province.	..	..	..	..	..	..	..	..	445	..	(*l*) Includes Rs. 87 on account cost of mapping and publishing working plan map of Akola Division.
Ajmer	..	..	..	..	..	..	..	..	144	..	
Baluchistan ..	..	..	..	..	..	..	..	..	227	..	(*m*) 93 linear miles of boundaries have been traversed on the 4-inch scale.
Andamans (*m*) ..	..	..	..	..	..	..	..	..	527	..	
Madras	Chittoor ..	..	..	7	18·8	..	..	29	15,408	..	
	Cuddapah	..	..	1							
	Chingleput	..	..	21							
Bombay	East Khandesh (*n*).	..	..	..	..	..	..	..	12,983	..	(*n*) 27 linear miles of boundaries have been traversed on the 4-inch scale.
Total 1915-16 ..	..	128	..	1,229	..	671	..	2,019	83,866	(*o*) 45,084	(*o*) Cost of mapping, publishing and special surveys only. Excludes Forest map office Head Quarters charges, Rs. 48,824.
,, 1914-15 ..	..	85	..	826	..	34	..	945	81,847	(*p*) 48,640	(*p*) Cost of mapping, publishing and special surveys only. Excludes Forest Map office Head Quarters charges, Rs. 43,831.
,, 1913-14 ..	..	312	..	877	..	22	..	1,211	80,902	(*q*) 42,417	(*q*) Cost of mapping, publishing and special surveys only. Excludes Forest Map Office Head Quarters charges Rs. 39,050.
,, 1912-13 ..	..	59	..	793	..	..	..	852	79,691	(*r*) 2,872	(*r*) Cost of mapping, publishing and special surveys only. Excludes Forest Map office Head Quarters charges, Rs. 36,220.
,, 1911-12 ..	..	33	..	873	..	..	..	906	78,839	(*s*) 1,827	(*s*) Cost of mapping, publishing and special surveys only. Excludes Forest Map Office. Head Quarters charges, Rs. 38,592.

STATEMENT V.

Progress made in Working Plans.

Province.	AREA UNDER SANCTIONED WORKING PLANS.					AREA NOT UNDER WORKING PLANS.				REVISIONS.			Expenditure on working plans during the year.
	At commencement of the year.	Added during the year.	Deducted during the year.	AT CLOSE OF YEAR.		Plans under preparation.	PLANS NOT UNDER PREPARATION.		Total forest area in Statement I. (Total of columns 5, 7, 8 and 9.)	Due or required.	In progress at the end of the year.	Revised plans sanctioned during the year.	
				Actual area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	per cent.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.
Bengal	4,982	..	..	4,982	47	2	1,610	4,090	10,684*	522	522	6	314
United Provinces ..	4,074	8	6	4,076	54	3,330	..	87	7,493	1,397	1,018	340	3,915
Punjab	3,884	..	..	3,884	50	178	..	3,734	7,796	3,088	1,326	169	91
Burma	8,889	206	31	9,064	6	2,082	6,979	124,197	142,322	...	344	..	11,065
Bihar and Orissa ..	1,460	..	..	1,460	52	..	89	2,233	3,782†	..	...	..	...
Assam	1,123	..	..	1,123	23	134	2,015	19,096	22,368	722	64	...	214
Central Provinces ..	14,893	322	3	15,212	77	1,980	364	2,110	19,666	1,127	2,870	...	1,057
Coorg	207	313	..	520	100	..	..	..	520	...	...	...	5,207
North-West Frontier Province.	236	..	..	236	100	..	..	..	236	236	..	...	...
Ajmer	140	..	..	140	99	..	2	..	142	..	...	...	...
Baluchistan ..	..	..	..	..	..	313	..	472	785	...	...	...	...
Andamans	708	..	..	708	32	...	83	1,416	2,207	...	..	...	...
Madras	8,366	441	..	8,807	43	2,527	5,846	2,403	19,583	..	...	...	...
Bombay	7,189	50	7	7,232	59	1,013	874	3,625	12,744‡	3,967	2,366	255	21,529
Total 1915-16 ..	56,151	1,340	47	57,444	23·1	11,559	17,862	1,63,463	2,50,328	11,059	8,510	770	43,392
„ 1914-15 ..	52,867	2,762	..	55,629	22.3	...	24,990	1,59,485	2,49,867	...	...	...	...
„ 1913-14 ..	50,601	3,325	..	53,926	22	...	20,663	1,59,254	2,45,612	...	...	...	...
„ 1912-13 ..	50,854	868	...	51,722	19	...	20,102	1,54,667	2,38,923	...	...	...	...
„ 1911-12 ..	50,318	574	..	50,892	19	..	1,59,188	21,604	242,960	...	...	...	...

* Includes 18 square miles of reserved and 54 square miles of protected forests not under the control of the Forest Department.
† Includes 993 square miles under the control of the Forest Department.
‡ Includes 263 square miles of reserved forests in charge of the Revenue Department not shown in Statement I.

STATEMENT VI.

Expenditure on communications and buildings.

PROVINCE.	New Works.		Repairs.		Other Works.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	11,905	4,775	17,048	20,725	7,964	(a) 62,417
United Provinces.. ..	51,374	44,304	40,855	64,093	15,361	2,15,987
Punjab	27,125	16,933	10,630	8,011	5,815	68,514
Burma	46,793	25,063	52,190	55,898	19,022	1,98,966
Bihar and Orissa ..	16,394	19,764	8,594	12,018	3,865	60,635
Assam	22,306	14,281	16,400	14,195	5,641	72,823
Central Provinces ..	15,858	17,499	27,842	23,296	11,564	96,059
Coorg..	2,562	2,819	3,338	5,870	2,944	17,533
North-West Frontier Province.	833	2,102	2,180	1,902	98	7,115
Ajmer	400	18	97	186	960	1,661
Baluchistan	..	..	265	..	2	267
Andamans	4,224	314	378	604	116	5,636
Madras	80,720	43,326	51,265	64,535	12,279	2,52,125
Bombay	19,205	27,318	15,609	38,714	5,502	1,06,348
Total 1915-16 ..	299,699	218,516	246,691	310,047	91,133	11,66,086
„ 1914-15 ..	559,391	375,798	275,747	575,596	122,358	17,08,890
„ 1913-14 ..	581,607	511,490	261,595	337,873	123,700	18,16,265
„ 1912-13 ..	578,632	343,091	243,413	289,256	134,231	15,88,623
„ 1911-12 ..	469,982	304,117	226,108	259,781	134,501	13,94,489

(a) Excludes pay of rest house-keepers Rs. 2,229.

STATEMENT VII.

Breaches of the forest rules.

PROVINCE.	Cases pending from 1914-1915.	NEW CASES OF THE YEAR.						DISPOSED OF DURING THE YEAR.						
								CONVICTIONS.		ACQUITTALS.		TOTAL.		
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	TOTAL CASES.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases pending at close of year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Bengal .. .. A.	24	6	309	64	54	433	457	403	1,182	25	135	428	1,317	28
Bengal .. .. B.	46	10	843	810	93	1,756	1,802	1,768	3,064	..	..	1,768	3,064	33
Bengal .. .. C.	..	21	94	26	21	162	162	..	..	..	..	..	..	..
Bengal Total ..	70	37	1,246	900	168	2,351	2,421	2,171	4,246	25	135	2,196	4,381	61
United Provinces .. A.	27	40	72	39	33	184	211	137	289	28	66	165	355	46
United Provinces .. B.	559	156	1,711	1,382	112	3,361	3,920	3,515	10,929	110	203	3,625	11,132	295
United Provinces .. C.	6	96	246	25	21	388	394	..	..	..	..	..	..	..
United Provinces Total ..	592	292	2,029	1,446	166	3,933	4,525	3,652	11,218	138	269	3,790	11,487	341
Punjab .. .. A.	171	41	477	213	98	829	1,000	722	1,680	80	344	802	2,024	163
Punjab .. .. B.	9	38	4,400	4,815	126	9,379	9,388	9,380	12,936	..	..	9,380	12,936	8
Punjab .. .. C.	..	206	84	5	9	304	304	..	..	..	..	..	..	..
Punjab Total ..	180	285	4,961	5,033	233	10,512	10,692	10,102	14,616	80	344	10,182	14,960	171
Burma .. .. A.	305	10	782	24	174	990	1,295	887	1,728	133	369	1,020	2,097	197
Burma .. .. B.	582	26	3,102	282	1,203	4,613	5,195	4,212	5,835	..	..	4,212	5,835	755
Burma .. .. C.	..	30	26	..	8	64	64	..	..	..	..	..	..	..
Burma Total ..	887	66	3,910	306	1,385	5,667	6,554	5,099	7,563	133	369	5,232	7,932	952
Bihar and Orissa .. A.	47	19	108	6	77	205	252	199	686	18	133	217	819	34
Bihar and Orissa .. B.	62	3	907	147	53	1,110	1,172	1,073	3,385	20	87	1,093	3,472	79
Bihar and Orissa .. C.	..	132	..	..	..	132	132	..	..	..	..	..	..	..
Bihar and Orissa Total ..	109	154	1,010	153	130	1,447	1,556	1,272	4,071	38	220	1,310	4,291	113
Assam .. .. A.	72	2	201	30	87	320	392	253	824	44	163	297	987	95
Assam .. .. B.	82	1	403	71	103	587	660	572	1,413	..	..	572	1,413	88
Assam .. .. C.	..	2	2	..	..	4	4	..	..	..	..	..	..	..
Assam Total ..	154	5	606	101	190	911	1,056	825	2,237	44	163	869	2,400	183
Central Provinces .. A.	28	15	75	137	43	270	298	198	489	54	320	252	809	45
Central Provinces .. B.	1,617	85	5,474	6,902	592	13,053	14,670	13,130	40,426	3	6	13,133	40,432	1,537
Central Provinces .. C.	..	250	342	15	7	614	614	..	..	..	..	..	..	..
Central Provinces Total ..	1,645	350	5,891	7,054	642	13,937	15,582	13,328	40,915	57	326	13,385	41,241	1,582
Coorg .. .. A.	3	..	2	2	1	5	8	7	16	..	..	7	16	1
Coorg .. .. B.	..	..	7	2	3	12	12	12	..	..	..	12	..	..
Coorg .. .. C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coorg Total ..	3	..	9	4	4	17	20	19	16	..	..	19	16	1
North-West Frontier Province .. A.	56	18	139	49	1	207	263	186	(a) 468	16	(c) 59	202	(d) 467	55
North-West Frontier Province .. B.	..	1	1,276	976	3	2,256	2,256	2,256	(b) 3,864	..	..	2,256	(b) 3,864	..
North-West Frontier Province .. C.	..	37	14	4	5	60	..	..	..	..	..	..	..	..
North-West Frontier Province Total ..	56	56	1,429	1,029	9	2,523	2,519	2,442	4,272	16	59	2,458	4,331	55

(a) And 24 villages (number of persons not given).
(b) And 4 villages (number of persons not given).
(c) And 1 village (number of persons not given).
(d) And 25 villages (number of persons no given).

STATEMENT VII—*contd.*

Breaches of forest rules.—contd.

PROVINCE.		Cases pending from 1914-1915.	NEW CASES OF THE YEAR.						DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	TOTAL CASES.	CONVICTIONS.		ACQUITTALS.		TOTALS.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer	A.	4	..	25	18	2	46	50	28	45	5	5	33	50	17
	B.	12	..	669	640	3	1,313	1,325	1,217	2,803	68	149	1,285	2,052	40
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		16	..	694	658	5	1,359	1,375	1,245	2,848	73	154	1,318	3,002	57
Baluchistan ..	A.	8	2	22	1	1	26	34	31	70	2	4	33	74	1
	B.	..	1	25	40	..	66	66	66	97	..	..	66	97	..
	C.	..	2	2	..	..	4	4	..	..	..	..	..	..	..
Total ..		8	5	49	41	1	96	104	97	167	2	4	99	171	1
Andamans	A.	..	..	20	..	..	20	20	19	27	1	1	20	28	..
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..		..	..	20	..	..	20	20	19	27	1	1	20	28	..
Madras	A.	2,632	92	5,033	2,052	341	7,518	10,150	7,474	20,771	587	2,227	8,061	22 998	2,616
	B.	3,566	44	14,401	5,634	661	20,740	24,306	..	..	19,306	40,502	19,306	40,502	3,615
	C.	..	1,699	504	505	9	2 627	2,627	..	..	..	..	..	..	..
Total ..		6,198	1,715	19,938	8,191	1,011	30,885	37,083	7,474	20,771	19,803	42,729	27, 367	63,500	5,631
Bombay	A.	256	86	446	210	118	860	1,116	767	1,755	92	268	859	2,023	249
	C.	949	165	7,484	8,827	1,081	17,557	18,506	17,545	34,383	..	..	17,545	34,393	960
	B.	42	1,638	2,312	37	40	4,027	4,069	..	..	..	..	4,026	..	41
Total ..		1,247	1,889	10,242	9,074	1,239	22,444	23,691	18,312	36,138	92	268	22,430	36,416	1,250
GRAND TOTAL ..	A.	3,633	331	7,706	2,845	1,030	11,913	15,546	11,311	29,970	1,085	4,094	12,396	34,064	2,947
	B.	7,484	530	40,702	30,528	4,033	75,803	83,278	54,746	119,135	19,507	40,947	74,253	160,092	7,410
	C.	48	4,023	3,626	617	120	8,386	8,374	..	..	..	..	4,026	..	41
Total 1915-16 ..		11,165	4,884	52,034	33,990	5,183	96,102	107,198	66,057	149,105	20,592	45,041	90,675	194,156	(e) 10,398
„ 1914-15 ..		10,067	3,634	51,654	32,362	5,447	93,097	103,164	78,179	174,348	3,591	10,149	85,838	184,497	(d) 11,179
„ 1913-14 ..		9,052	4,012	50,899	33,938	5,541	94,390	101,531	83,026	174,084	1,114	4,139	88,411	178,223	(c) 10,084
„ 1912-13 ..		8,953	3,108	46,501	28,052	5,204	82,940	90,162	74,137	161,925	1,297	4,916	75,416	166,841	(b) 9,114
„ 1911-12 ..		7,773	4,182	45,279	27,176	4,753	81,386	89,163	69,220	153,676	1,831	6,126	71,051	154,400	(a) 8,859

N. B.—A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.
(*a*) Excludes 7,454 undetected cases and 1,799 cases struck off.
(*b*) „ 3,563 „ „ 2,069 „ „
(*c*) „ 1,116 „ „ 1,910 „ „
(*d*) „ 3,736 „ „ 2,391 „ „
(*e*) „ 3,375 „ „ 1,716 „ „

STATEMENT VIII.

Area protected from fire.

Province.	Area in square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected.		Average of past five years to 1914-15.	1915-16.	
Bengal	579	570	11·7	1·0	1·5	
United Provinces	3,868	3,480	67·3	2·1	10·0	
Punjab	1,074	1,047	48·5	2·4	2·5	
Burma	2,680	2,473	8·7	4·4	7·7	
Bihar and Orissa	(a) 1,693	(a) 1,636	94·7	(b)	3·4	(a) Excludes protected forests under fire protection.
Assam	72	69	1·6	1·8	3·6	
Central Provinces	10,919	10,656	54·1	2·3	2·4	(b) Refers to the old province of Eastern Bengal and Assam.
Coorg	124	121	23·5	2·5	2·7	
North-West Frontier Province	80	51	21·6	9·7	36·5	
Ajmer	141	141	99·3	0·1	..	
Madras	16,072	14,220	75·5	6·5	11·5	
Bombay	11,749	11,121	92·7	4·2	5·3	
Total 1915-16	49,051	45,585	46·0	4·1	7·1	
„ 1914-15	50,203	48,487	51·4	4·5	3·4	
„ 1913-14	49,970	47,983	51·9	4·6	4·0	
„ 1912-13	51,659	49,833	53·3	5·2	3·5	
„ 1911-12	51,182	48,333	53·2	5·6	5·5	

STATEMENT IX.

Causes of forest fires.

Province.	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the Fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
Bengal	1	..	5	3	3	1	4	..	9	4·5	22	8·6
United Provinces ..	48	11·1	81	48·9	118	59·2	141	241·0	53	28·1	441	388·3
Punjab	..	..	34	10·7	189	4·9	49	10·5	47	2·8	319	28·9
Burma	30	5·3	34	5·0	46	14·3	53	131·4	44	51·5	207	207·5
Bihar and Orissa ..	2	1·0	10	4·1	18	7·8	24	12·7	32	41·7	86	67·3
Assam	..	..	19	37·2	6	68·7	3	2·0	1	·5	29	108·4
Central Provinces ..	56	32·3	61	48·8	55	33·2	21	22·5	169	126·1	362	262·9
Coorg	5	..	1	..	..	..	5	3·3	..	..	11	3·3
North-West Frontier Province. ..	..	..	2	..	13	..	5	..	..	..	20	..
Ajmer	..	..	..	..	..	..	..	..	..	..	..	..
Baluchistan	..	..	..	..	5	..	..	..	2	..	7	..
Andamans	..	..	..	..	..	..	..	..	..	..	..	..
Madras	76	58·7	297	494	459	242·8	623	453·6	1,121	834·3	2,576	2,083·4
Bombay	58	46·7	148	96·1	535	68·1	344	125·4	854	311·4	1,939	647·7
Total 1915-16 ..	276	155·1	692	747·8	1,447	500·0	1,272	1002·4	2,332	1,400·9	6,019	3,806·3
„ 1914-15 ..	255	96·9	419	373·0	1,068	250·2	927	297·7	1,609	664·1	4,278	1,681·8
„ 1913-14 ..	319	148·2	431	426·1	1,278	332·7	690	359·0	2,038	723·6	4,756	1,989·6
„ 1912-13 ..	227	79·8	409	212·7	870	207·5	606	392·3	1,531	999·4	3,643	1,891·6
„ 1911-12 ..	281	131·5	451	487·5	1,782	833·0	871	536·0	1,524	856·4	4,909	2,844·4

STATEMENT X.

Area closed and open to grazing.

AREA IN SQUARE MILES.

Province.	Closed to all animals.		Closed to browsers, camels, goats or sheep.		Open to all animals.	Total area.	Remarks.
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	5,764	30	80	63	4,747	(a) 10,684	(a) Includes 18 square miles of other reserves and 54 square miles of other protected forests.
United Provinces ..	2,183	145	874	2	4,289	7,493	
Punjab	250	561	531	36	6,418	7,796	
Burma	22,298	4,393	520	6	1,15,105	1,42,322	
Bihar and Orissa ..	1,401	..	653	..	1,728	(b) 3,782	(b) Includes 993 square miles of other protected forests not under the management of the Forest Department.
Assam	3,888	331	470	..	17,678	22,367	
Central Provinces ..	3,125	348	10,028	..	6,165	19,666	
Coorg	72	447	..	..	1	520	
North-West Frontier Province.	90	..	99	..	47	236	
Ajmer	12	130	(c) ..	..	..	142	(c) The whole area is closed to browsers, (camels).
Baluchistan	202	2	13	..	568	785	
Andamans	83	..	..	..	2,124	2,207	
Madras	3,512	178	657	2	15,234	(d) 19,583	(d) Of the total area 15,030 square miles were closed to goats only.
Bombay	1,904	291	8,864	331	3,628	(e) 15,018	(e) Includes 2,537 square miles not under the charge of the Forest Department.
Total 1915-16 ..	44,784	6,856	22,789	440	177,732	252,601	
,, 1914-15 ..	45,021	6,266	22,975	428	178,869	253,559	
,, 1913-14 ..	43,591	6,699	23,302	436	175,336	249,364	
,, 1912-13 ..	42,692	7,297	22,713	482	169,345	242,529	
,, 1911-12 ..	41,568	7,660	21,414	561	175,347	246,550	

STATE
Protection

Province.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.									
	At full rates.					At privileged rates.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	1,921	1,335	381	..	45	143	114,398	164	..	25
United Provinces ..	62,738	163,449	127,232	976	3,419	35,270	151,035	31,847	..	1,861
Punjab	17,609	95,332	291,139	12,193	950	966	39,232	312,551	17	923
Burma	5,256	20,968	72	1,831	111	35	35	..	..	..
Bihar and Orissa ..	8,999	34,047	6,163	..	4	9,007	136,559	14,688	..	..
Assam	85,093	39,736	1,067	..	627	6	5	..	..	..
Central Provinces ..	279,583	828,691	477,085	178	4,383	97,554	1,687,714	4,322	..	397
Coorg	300	3,866	..	..	..	..	..	..	..	..
North-West Frontier Province.	2,614	2,702	2,346	..	14	..	..	..	..	..
Ajmer	166	1,648	..	..	..	1,575	10,575	..	..	1
Baluchistan	349	2,277	11,861	22	63	..	..	..	..	..
Madras	97,640	925,178	1,148,529	..	2	15,486	1,09,385	29,162	..	18,353
Bombay	34,327	(a) 119,097	122,247	2,960	2,412	173,924	(a) 1,268,529	207,160	..	4,996
Total 1915-16 ..	5,96,595	22,38,326	21,88,122	18,160	12,030	333,966	35,17,467	5,99,894	17	26,559
„ 1914-15 ..	601,839	2,475,321	2,618,384	11,746	18,409	307,563	3,274,365	554,814	1,356	24,422
„ 1913-14 ..	762,295	3,083,544	2,736,813	14,353	20,883	239,291	2,822,584	458,069	..	20,491
„ 1912-13 ..	696,074	2,875,482	1,515,205	12,185	22,998	347,069	3,844,768	1,921,392	..	3,364
„ 1911-12 ..	745,400	3,219,481	2,344,142	14,887	25,429	309,607	3,134,478	592,331	4	14,956

(a) Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
By right under settlement.					During pleasure of Government or otherwise than under settlement.				
Buffaloes.	Cows and bullocks.	Goats and Sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
..	..	..	..	..	456	1,618	..	..	..
23,879	314,532	37,169	..	1,508	3,475	20,879	10,574	..	101
133,816	641,692	1,311,532	276	185,878	25	9,160	47	4,086	29
142,700	635,885	84	..	284	21,581	..	..	..	9,236
30,866	99,834	21,000	..	..	181	691	471	..	..
..	340	..	..	..	66,788	4,07,149	76,227	..	325
..	375	..	..	..	800	263,433	447	..	70
..	545	..	..	..	..	9,744	..	..	..
6,973	9,753	..	..	..	5,971	10,433	..	..	461
..	..	..	..	..	1,564	9,498	..	..	..
..	3,310	53,226	1	1,193	..	..	..	..	..
159	2,490	5,271	..	..	7,748	61,673	775	..	1
4,364	14,411	61	2	358	83,486	(a) 427,553	5,173	1,514	4,847
342,757	1,723,167	1,428,343	279	189,221	192,075	1,221,831	93,714	5,600	15,070
246,601	1,166,591	1,432,644	279	182,992	189,832	1,143,758	82,648	3,351	6,464
243,388	1,108,288	1,435,051	310	183,445	175,601	1,057,944	88,729	4,083	8,212
264,744	1,216,629	1,464,902	310	183,344	152,684	1,051,168	89,651	3,554	9,075
272,550	131,860	1,439,407	308	183,481	219,129	1,237,379	85,157	2,289	7,325

STATEMENT XII.

Area of plantations and the cost of the year's work.

Province.	Area in acres at close of the year.			Cost of operations during the year.
	Regular Plantations.	Taungyas.	Total.	
(1)	(2)	(3)	(4)	(5)
				Rs.
Bengal	(a) 1,585	225	1,810	2,308
United Provinces	(b) 18,500	..	18,500	25,640
Punjab	(c) 2,088	..	2,088	21,766
Burma	(d) 3,377	(e) 76,870	80,247	27,655
Bihar and Orissa	1,209	..	1,209	2,276
Assam	3,372	151	3,523	1,287
Central Provinces	760	(f) 5,379	6,139	629
Coorg	2,072	2,582	4,654	3,943
North-West Frontier Province	..	..	..	..
Ajmer	(g) 2	..	2	36
Baluchistan	46	..	46	..
Andamans	(h) 2,563	..	2,563	10,253
Madras	(i) 27,111	824	27,935	32,307
Bombay	(j) 6,811	..	6,811	15,077
Total 1915-16	69,496	86,031	155,527	143,177
„ 1914-15	63,151	87,059	150,210	1,73,001
„ 1913-14	55,755	87,830	143,585	1,84,837
„ 1912-13	55,143	85,636	140,779	2,31,754
„ 1911-12	60,634	87,983	148,617	2,25,850

(a) 97 acres excluded during the year.
(b) 464 acres excluded during the year.
(c) 45 acres excluded during the year.
(d) 30 acres excluded during the year.
(e) 198 acres excluded during the year.
(f) 796 acres excluded during the year.
(g) 358 acres excluded during the year.
(h) 27½ acres excluded during the year.
(i) 1,377 acres excluded during the year.
(j) 1,511 acres excluded during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile.							
									Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal ..	17,511,297	2,92,988	320,121	15,32)	1,035,755	26,378	18,867,173	334,686	2,595	60	187	9	257	7	1,778	32
United Provinces	22,532,779*	11,27,684	1,243,159	24,028	90,239	1,528	23,866,177	11,53,240	4,35 ·	218	543	11	2,578	44	3,185	154
Punjab ..	12,706,403*	12,05,617	18,502,860	11,95,015	8,131,874	38,930	39,341,137	24,30,562	5,893	559	4,439	286	5,524	26	5,046	313
Burma ..	18,937,278	5,31,987	..	..	43,156,560	4,90,293	62,093,838	10,22,100	663	18	..	..	379	4	436	7
Bihar and Orissa	2,704,356	89,864	15,020,611	1,47,946	29,663	619	17,754,630	2,38,429	1,566	52	14,143	139	..	..	6,366	85
Assam ..	2,048,093	1,31,120	..	..	9,625,550	805,724	11,673,643	9,36,844	417	27	..	..	551	46	522	42
Central Provinces	32,827,814	21,92,862	..	..	..	..	32,827,814	21,92,862	1,669	111	..	..	..	..	1,669	111
Coorg ..	3,48,986	26,976	151,022	345	..	..	500,008	27,221	671	52	..	..	..	..	962	52
North-West Frontier Province.	3,057,527	35,744	..	..	..	..	3,057,527	35,744	12,956	151	..	..	..	..	12,956	151
Ajmer ..	238,843	87,481	..	72	..	..	238,843	87,553	1,682	616	..	..	..	..	1,682	617
Baluchistan ..	50,008	43,944	..	..	84,419	40	134,427	43,984	160	140	..	..	179	·08	171	56
Andamans ..	8,14,380	1,669	..	..	10,31,145	1,765	18,05,525	3,434	9,812	20	..	..	509	·8	859	2
Madras ..	17,100,019*	18,08,239	..	..	6,680,572†	41,943	23,780,591	19,50,182	907	100	..	..	1,102	57	1,214	99
Bombay ..	48,581,166*	12,24,806	1,274,210	..	329,402	..	50,184,778	12,24,806	4,011	102	2,638	..	..	..	4,021	98
Total 1915-16 ..	179,453,949	88,90,881	36,511,983	1,382,726	70,245,179	14,07,130	286,216,111	116,80,737	1,809	90	3,759	142	501	10	1,149	47
„ 1914-15	166,127,920	80,97,598	38,147,762	14,61,904	66,179,777	12,03,781	270,455,459	1,07,63,283	1,702	83	3,166	141	466	8	1,092	43
„ 1913-14	185,988,403	82,11,087	26,629,457	13,53,532	82,025,463	12,34,286	294,643,323	1,07,98,905	1,931	85	3,174	161	562	9	1,200	44
„ 1912-13	185,318,638	85,14,039	28,761,685	13,40,686	76,638,543	12,20,949	290,718,866	1,10,81,674	1,913	88	3,387	158	574	9	1,217	46
„ 1911-12	166,538,603	80,50,904	28,351,270	14,70,953	62,304,550	11,12,869	257,194,423	1,06,34,726	1,732	84	3,337	173	450	8	1,059	44

*Includes leased forests.
†Reserved and unreserved lands.

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

Province.	Timber.					Fuel.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers	By free-grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	50,291	5,827,478	3,329	..	5,881,098	23,732	10,865,889	2,096,454	..	12,986,075
United Provinces..	977,633	7,147,626	113,209	600,091	8,838,559	537,711	5,701,420	238,139	8,550,348	15,027,618
Punjab	290,882	8,378,044	141,433	708,526	9,518,885	1,841,294	3,890,964	95,532	23,994,462	29,822,252
Burma	38,61,730	24,269,176	7,45,872	1,603,364	30,480,142	2,483,823	26,769,674	270,273	2,089,926	31,613,696
Bihar and Orissa	8,216	1,112,041	18,689	201,327	1,340,273	1,729	1,674,609	5,780	14,732,239	16,414,357
Assam	212,857	3,440,296	557,963	..	4,211,116	51,049	2,276,942	5,207,274	9,200	7,544,465
Central Provinces	670,623	6,213,502	205,261	65,525	7,154,911	527,212	22,188,508	2,224,308	732,875	25,672,903
Coorg	113,266	215,654	138	..	329,058	39,210	131,740	..	..	170,950
North-West-Frontier Province ..	23,459	2,107,289	67,320	2,186	2,200,254	63,295	367,438	426,076	479,756	1,336,565
Ajmer	..	4,492	..	567	5,059	9,026	2,21,800	2,958	..	2,33,784
Baluchistan	808	3,055	6,111	..	9,974	34,846	89,511	96	..	124,453
Andamans	757,699	38,304	25,650	32,006*	853,659	6,91,866	25,440	2,05,200	1,19,360*	10,41,866
Madras	617,351	3,000,249	118,457	182,648	3,918,705	1,365,111	17,907,659	6,921	582,195	19,861,886
Bombay	1,081,374	4,341,238	62,359	77,647	5,562,618	4,331,932	32,075,769	71,361	81,43,098	44,622,160
Total 1915-16	8,666,189	66,098,444	2,065,791	3,473,887	80,304,311	12,001,836	124.187,363	10,850,372	59,433,459	206,473,030
„ 1914-15	7,935,592	64,265,882	2,679,787	6,364,563	81,295,824	19,969,896	116,279,082	8,863,291	53,577,265	189,689,534
„ 1913-14	7,655,518	81,809,626	4,299,819	3,460,207	97,225,170	13,632,994	124,457,870	18,894,872	40,432,417	197,418,153
„ 1912-13	7,677,116	80,302,172	3,157,166	3,823,795	94,960,249	15,255,136	122,846,567	9,462,190	48,194,724	195,758,617
„ 1911-12	6,560,737	62,036,563	2,356,266	3,478,234	74,331,800	22,289,684	107,437,118	6,822,664	46,312,617	182,862,623

*By district officers.

STATEMENT XIV—*contd.*

Forest produce removed by different agencies—contd.

Part II.—Value of minor forest produce.

Province.	Bamboos.					Grazing and Fodder Grass.					Other Minor Produce.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	49	65,142	68	..	65,259	..	57,935	21,586	..	79,521	662	1,88,017	1,227	..	1,89,906
United Provinces..	141	1,84,073	7	5,927	1,90,748	1,899	1,52,398	3,038	1,72,983	3,30,318	3,61,781	2 25,902	5,257	39,234	6,32,174
Punjab	2,700	12,854	1	163	15,718	..	1,83,762	3,592	20,03,799	21,91,153	1,71,097	16,615	75	44,904	2,32,691
Burma	519	2,42,772	242	15,373	2,58,906	..	10,609	68,101	2,84,385	3,63,095	891	3,37,269	2,311	63,718	4,00,189
Bihar and Orissa	8,204	18,627	170	21,898	48,899	..	8,665	585	85,021	94,271	387	71,372	53	23,447	95,259
Assam	67	16,750	3,578	..	20,404	..	1,83,151	3,09,058	127	4,92,336	3,010	1,99,118	2,22,427	..	4,24,555
Central Provinces	5,209	2,41,094	5,285	3,031	2,55,519	7,000	14,78,365	1,49,163	1,328	16,35,856	7,619	2,78,877	13,906	1,085	3,01,437
Coorg	..	1,652 (a)	..	..	1,652	..	1,259	2,436	136	3,831	..	21,738	..	..	21,738
North-West Frontier Province.	..	..	..	..	..	..	11,103	17,069	7,150	35,322	41	378	3	..	422
Ajmer	..	252	..	..	252	601	1,595	6,456	75,706	84,358	1,068	1,875	..	..	2,943
Baluchistan ..	..	..	..	..	..	..	1,676	125	41,470	43,271	15	488	211	..	714
Andamans ..	78	41	214	215	548	..	..	..	..	..	289	263	2,180	154	2,886
Madras	10,607	3,05,498	987	407	3,17,499	..	6,89,635	6,592	936	6,97,163	37,794	8,62,966	574	24,186	925,520
Bombay ..	94	90,671	270	5,048	96,083	68,042	4,65,614	8,949	3,28,359	8,71,864	28,042	1,63,732	2,526	61,659	2,56,859
Total 1915-16 ..	27,668	1,180,035	10,822	52,962	12,71,487	78,442	32,45,767	5,06,750	30,01,400	69,22,359	6,13,596	23,64,610	2,50,750	2,58,387	34,87,343
,, 1914-15 ..	34,309	10,22,060	12,049	49,187	11,17,605	28,234	32,54,843	5,48,908	27,97,531	66,29,516	5,85,163	19,52,132	2,57,547	2,24,457	30,19,299
,, 1913-14 ..	47,367	11,70,509	29,401	58,276	13,05,553	1,62,578	29,40,611	6,07,302	26,70,618	63,81,109	5,08,863	21,04,737	2,80,140	2,17,914	31,11,679
,, 1912-13 ..	82,514	10,38,771	25,199	50,079	11,96,563	1,57,249	31,15,811	3,16,915	27,57,262	63,47,237	3,79,583	24,83,720	206,250	2,11,321	33,40,874
,, 1911-12 ..	1,23,106	10,71,367	14,503	80,495	10,89,471	1,40,149	25,90,178	3,51,957	29,13,447	61,95,728	4,59,916	21,26,552	2,57,512	3,05,647	31,49,627

(a) Includes cost of 35,450 reeds.

STATEMENT XV.

Exports of Forest produce.

ARTICLES OF FOREST PRODUCE.	QUANTITY IN TONS OF 20 CWT. IN THE CASE OF TEAK AND OTHER TIMBERS, CUBIC TONS.		VALUATION AT PORT OF SHIPMENT IN 1915-16.	
	Average of 5 years 1910-11 to 1914-15.	In 1915-16.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc, raw	836	2,354	1,26,67, 226	5,381
Lac .. Button	1,498	638	5,75,805	903
Lac .. Shell	16,285	17,933	1,54,73,836	863
Lac .. Stick, seed and other kinds	2,053	2,295	11,26,171	491
Cutch and gambier	3,617	7,276	24,19,989	333
Myrabolams	66,910	69,633	70,52,352	101
Cardamums	153	215	7,43,958	3,460
Sandal, Ebony and other ornamental woods ..	(a)	(a)	15,58,120	..
Teak	51,649	32,403	60,56,864	187
Other timbers (excluding firewood) ..	6,352	3,622	2,56,122	71
Total in 1915-16 ..				4,79,30,443
„ 1914-15 ..				4,17,49,407
„ 1913-14 ..				4,54,25,118
„ 1912-13 ..				4,67,80,613
„ 1911-12 ..				3,96, 36,932

(a) Quantity (whether by weight or measurement) not recorded.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Grass and grazing.	Other minor produce.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs
Bengal	198	22,006	11,287	49,635	1,227	84,353
United Provinces	81,013	81,357	5,934	2,00,048	45,386	4,13,738
Punjab	32,895	9,52,743	245	20,09,766	44,898	30,40,547
Burma	2,11,008	12,591	18,038	3,52,486	63,607	6,57,730
Bihar and Orissa	16,031	1,59,772	22,068	85,607	24,900	3,08,378
Assam	42,728	68,002	3,578	3,09,185	2,22,427	6,45,920
Central Provinces	15,157	80,977	25,124	7,86,059	59,051	9,66,368
Coorg	34	..	..	2,572	..	2,606
North-West Frontier Province	5,162	20,808	..	24,119	103	50,192
Ajmer	63	..	..	84,743	..	84,806
Baluchistan	2,723	..	..	41,470	103	44,296
Andamans	1,695	8,114	429	..	2,334	12,572
Madras	22,324	6,111	1,394	9,523	24,760	64,112
Bombay	3,16,522	9,22,978	20,318	6,37,695	2,44,185	21,41,698
Total 1915-16 ..	7,47,553	23,35,459	1,08,415	45,92,908	7,32,981	85,17,316
„ 1914-15 ..	9,78,430	22,71,655	1,02,095	43,67,560	6,85,948	84,05,688
„ 1913-14 ..	9,13,245	19,27,965	1,13,992	37,72,590	6,77,202	74,04,994
„ 1912-13 ..	6,03,992	17,61,889	1,08,600	37,63,678	6,62,760	69,00,919
„ 1911-12 ..	5,21,934	17,85,668	1,23,517	37,62,335	7,91,414	69,87,868

STATEMENT XVII.

Details of revenue and expenditure for the Forest year 1915-16.

						Rs.
Gross Receipts ..	(*a*) Wood					2,29,54,053
	(*b*) Minor forest produce					27,03,432
	(*c*) Forest stamps and commutation fees for forest produce					1,48,301
	(*d*) Grazing					32,27,006
	(*e*) Revenue from forests not managed by Government					1,92,394
	(*f*) Miscellaneous					18,21,082
				Total Revenue		3,10,46,268
Expenditure ..	A. Recurring ..	(*a*) Administration.	(*i*) Superior Staff			37,20,068
			(*ii*) Subordinate Staff (including Rangers, Foresters and Guards).			35,37,320
			(*iii*) Office Establishments (including Contingencies).			19,53,913
		(*b*) Working ..	(1) Extraction			43,52,475
			(2) Roads and Buildings			11,91,715
			(3) Fire protection..			5,29,247
			(4) Cultural operations			6,34,772
			(5) Live-stock, stores and plant ..			6,67,227
			(6) Working-Plans..			50,166
			(7) Rent for leased forests			2,87,381
			(8) Miscellaneous			2,11,874
		(*c*) Expenditure on realization of revenue from forests not managed by Government.				7,668
		(*d*) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute.*				2,87,616
				Total ..		1,74,31,442
	B. Extraordinary	(*e*) Forest Settlement				1,97,103
		(*f*) Forest Survey				74,089
		(*g*) Forest Demarcation				1,64,797
				Total ..		4,35,989
				GRAND TOTAL OF EXPENDITURE ..		1,78,67,431
				Net Revenue ..		1,31,78,837

*Expenditure under this head in provinces has been included in (*a*) Administration.

STATE

Summary of revenue and expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Bihar and Orissa.	Assam.
(1)	2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
REVENUE.							
I.—Timber and other produce removed from the forests by Government agency.	18,648	2,328	8,67,799	3,65,911	17,22,539	8,515	182,513
II.—Timber and other produce removed from the forests by consumers or purchasers.	4,765	10,85,353	27,42,958	11,99,962	74,25,790	4,99,437	726,821
III. Drift and waif wood and confiscated forest produce.	..	6,940	5,479	44,511	2,01,163	2	18,259
IV.—Revenue from forests not managed by Government.	..	..	14,909	3,382	1,58,649	..	49,100
V.—Miscellaneous	44	50,989	1,07,686	1,13,517	1,91,076	9,773	78,359
Total Revenue ..	(a)23,457	11,45,610	37,38,831	17,27,283	9,699,217	5,17,727	10,55,052
EXPENDITURE.							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forest by Government agency.	4,146	1,03)	8,20,193	1,20,477	11,39,519	3,935	74,441
II.—Timber and other produce removed from the forests by consumers or purchasers.	..	1,05,732	54,192	6,766	1,56,630	12,052	27,755
III.—Drift and waif wood and confiscated forest produce.	..	1,136	1,774	23,364	92,237	..	603
IV.—Revenue from forests not managed by Government.	..	..	6,191	..	261	..	1,657
V.—Rent of leased forests and payment to shareholders in forests managed by Government.	..	672	1,37,609	51,435	..	..	35,288
VI.—Live-stock, stores tools and plant	128	10,837	55,316	22,914	331,735	4,911	30,472
VII.—Communications and buildings ..	..	67,668	2,11,080	82,896	2,20,193	63,106	82,767
VIII.—Demarcation, improvements and extension of forests.	604	43,566	3,74,050	1,20,652	3,40,859	29,102	37,258
IX.—Miscellaneous	..	6,048	40,024	7,728	47,960	2,453	12,866
Total A.—Conservancy and Works ..	(b)4,878	2,36,698	17,00,429	4,45,232	23,29,394	1,15,559	3,03,107
B.—Establishments.							
I—Salaries	1,04,212	2,02,272	6,63,367	3,70,425	2,063,040	2,02,836	3,64,221
II.—Travelling Allowances	202	44,000	1,14,229	68,890	3,41,803	28,869	63,808
III.—Contingencies	210	20,665	88,282	39,331	1,52,004	14,286	24,078
Total B.—Establishments ..	(c) 1,04,624	3,56,937	8,65,878	4,78,646	25,56,847	2,45,991	4,52,107
Grand Total of Expenditure ..	1,09,502	5,93,635	25,66,307	9,23,878	48,86,241	3,61,550	7,55,214
Surplus ..	..	5,51,975	11,72,524	8,03,405	48,12,976	1,56,177	2,99,838
Deficit ..	86,045	..	..	..	..	..	..
Proportion of surplus to gross revenue..	..	48	31	46	50	30	28
Net revenue per square mile of forest area under control of Forest Department.	..	52	156	103	34	56	13

(*a*) Includes revenue derived from Indore and Bangalore.
(*b*) Includes expenditure on account of Indore and Bangalore.
(*c*) Includes expenditure on account of Indore.

MENT XVIII.

Forest Department in India for the financial year 1915-16.

Central Provinces.	Coorg.	North-West Frontier Province.	Ajmer.	Baluchistan.	Andamans.	Forest College and Research Institute.	Forest Surveys (Imperial).	Madras.	Bombay.	TOTAL.
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1,35,184	3,75,634	17,944	3,054	11,905	4,28,654	..	..	8,20,854	15,99,306	65,60,788
29,39,389	61,135	1,58,740	16,666	3,781	5,773	..	..	27,48,398	29,04,850	225,23,818
1,713	..	655	25	..	..	..	..	17,783	3,922	3,00,452
4,821	..	1,555	..	5,837	..	..	..	..	4,933	2,43,186
1,97,155	12,386	7,921	3,700	110	357	6,995	..	5,19,803	1,88,252	14,88,123
32,78,262	4,49,155	1,86,815	23,445	21,633	4,34,784	6,995	..	41,06, 838	47,01,263	3,11,16,367
27,580	18,683	12,006	895	5,566	3,00,247	..	..	1,48,888	8,48,947	35,35,562
1,56,611	..	364	235	..	193	..	..	1,15,407	58,908	6,94,845
234	..	142	..	..	..	..	..	2,099	151	1,21,740
..	..	..	..	185	..	..	..	..	..	8,294
..	..	19,089	..	..	..	..	..	14,596	33,725	2,92,414
26,237	11,620	202	998	40	23,291	6,051	..	1,31,180	19,236	6,75,168
1,15,220	17,566	7,417	1,116	272	5,245	14,716	..	2,61,148	1,22,520	12,72,930
1,86,718	49,672	1,065	4,735	27	25,199	..	48,663	5,90,237	1,30,392	19,82,799
26,388	3,193	1,273	47	252	2,470	24,839	..	15,547	44,484	2,35,572
5,38,988	1,00,734	41,558	8,026	6,342	3,56,645	45,606	48,663	1,279,102	12,58,363	88,19,324
9,61,788	63,522	51,304	14,092	19,282	65,728	1,91,120	..	12,59,051	11,71,081	78,57,341
1,28,339	9,686	7,801	1,881	1,993	7,372	18,119	..	2,63,904	1,53,586	12,54,482
1,05,221	2,691	4,132	1,153	378	1,087	23,673	..	1,25,261	59,008	6,61,460
11,95,348	75,899	63,237	17,126	21,653	74,187	2,32,912	..	16,48,216	13,83,675	97,73,283
17,34,336	1,76,633	1,04,795	25,152	27,995	4,30,832	2,78,518	48,663	29,27,318	26,42,038	1,85,92,607
15,43,926	2,72,522	82,020	..	..	3,952	..	..	11,79,520	20,59,225	1,25,23,760
..	..	..	1,707	6,362	..	2,71,523	48,663	..	..	..
47	61	44	..	..	1	..	..	29	44	40
78	524	348	..	..	2	..	..	60	165	50

STATE

Revenue, expenditure and surplus of the Forest Department

Province.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896 97.	1897-98.	1898-99.	1899-00.	1900-01.	1901-02.	1902-03
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	(I) REV Rs.
Imperial*	6,688	5,240	2,680	4,980	2,690	41,000	19,130	17,540	6,090	2,463	3,484	3,659
Bengal†	7,89,553	7,44,880	8,01,610	7,95,670	9,18,710	13,70,850	11,89,280	9,72,310	11,38,910	12,33,339	12,92,237	12,56,247
United Provinces	17,31,514	16,52,540	17,00,860	16,58,250	16,01,340	14,44,820	13,86,670	15,68,040	16,14,740	15,65,463	17,15,508	20,25,324
Punjab	10,20,074	8,12,630	9,13,300	10,32,430	10,14,500	11,07,720	10,68,470	14,74,430	14,00,770	13,50,842	14,47,558	15,86,408
Burma	41,85,414	56,60,000	57,85,100	54,36,780	56,95,830	63,78,950	72,15,260	83,50,890	78,12,050	80,54,444	58,73,938	67,39,053
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	3,36,129	3,82,830	4,88,500	4,35,090	4,25,030	4,36,440	3,84,820	3,98,180	5,68,100	5,49,521	5,12,963	5,80,200
Central Provinces ..	18,71,085	16,61,870	16,17,280	14,82,030	14,91,280	12,91,140	11,80,400	14,34,940	12,97,490	12,65,614	15,79,116	16,84,428
Coorg	1,82,897	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910	1,55,070	1,62,410	1,37,596	1,70,242	1,90,730
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	13,012	1,01,123
Ajmer	19,799	14,890	14,620	12,840	15,640	12,370	15,540	14,420	10,270	10,646	6,865	9,736
Baluchistan	20,609	19,030	20,730	16,300	14,930	15,460	15,040	14,920	17,060	16,956	14,712	19,336
Andamans	2,72,338	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710	2,29,460	2,60,600	2,77,886	2,66,903	3,26,035
Imperial Forest College and Research Institute.	1,788	1,980	1,990	2,790	4,310	2,850	2,890	2,360	3,210	3,697	3,545	3,252
Forest Surveys (Imperial) ..	257	520	240	80	510	400	220	290	420	327	473	3,034
Total ..	1,04,38,145	1,14,97,580	1,19,71,490	1,11,44,820	1,14,52,140	1,25,20,470	1,30,42,340	1,46,32,850	1,42,92,120	1,44,68,794	1,29,00,556	1,45,28,565
Madras	16,94,216	15,77,210	19,47,180	18,94,030	21,10,570	23,03,330	21,36,490	21,10,520	23,02,290	23,40,170	25,43,430	26,13,819
Bombay	32,84,649	32,69,550	37,94,350	37,50,030	35,36,670	30,32,710	26,16,660	22,95,150	24,15,200	29,61,529	23,79,729	23,29,156
Grand Total ..	1,54,17,010	1,63,44,340	1,77,13,020	1,67,88,880	1,70,99,380	1,78,56,510	1,77,95,490	1,90,38,520	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540
Imperial*	65,788	1,07,270	80,840	84,950	80,410	78,960	84,300	85,460	96,550	83,578	79,539	(II) EX 85,017
Bengal†	4,22,930	3,81,610	4,04,040	3,97,390	4,66,070	6,90,040	6,53,440	4,86,320	5,45,210	5,70,806	6,57,131	6,38,014
United Provinces	9,58,211	9,28,540	9,63,020	9,36,310	9,42,860	9,06,340	9,17,850	9,72,030	9,42,380	9,63,439	10,08,739	10,13,998
Punjab	6,40,275	6,56,270	6,36,430	7,22,120	6,78,420	7,23,300	7,71,940	8,55,340	12,11,460	8,87,343	9,38,335	9,60,095
Burma	16,08,980	18,05,000	18,62,500	19,17,990	19,33,600	21,28,820	21,96,610	24,26,190	24,47,440	26,54,717	26,46,457	28,90,263
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	2,67,525	2,64,070	2,68,220	2,72,010	2,86,140	2,82,010	2,88,830	3,05,360	3,57,140	3,47,972	3,29,112	3,27,498
Central Provinces ..	10,02,281	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860	11,65,490	11,09,400	12,75,820	11,65,866	12,00,904	12,57,288
Coorg	86,860	73,090	86,890	86,140	85,840	71,630	87,020	80,100	74,220	70,905	82,333	89,437
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	19,510	54,086
Ajmer	13,986	15,000	15,900	14,900	15,730	22,010	14,670	16,300	15,350	16,782	15,927	16,377
Baluchistan	30,497	55,620	63,730	40,910	41,770	29,770	27,330	27,760	28,680	29,254	24,480	23,240
Andamans	1,79,909	2,31,210	2,44,550	1,22,780	1,02,020	3,16,600	2,47,340	1,38,400	1,40,940	1,40,137	2,04,667	2,81,702
Imperial Forest College and Research Institute.	44,347	50,400	65,530	65,980	67,950	67,380	60,920	63,370	73,550	71,238	76,200	66,338
Forest Surveys (Imperial) ..	26,882	22,160	27,900	29,840	29,950	31,970	33,950	33,970	33,980	33,991	33,730	33,985
Total ..	54,38,471	56,70,870	59,05,990	59,19,020	59,28,610	65,41,690	65,49,690	66,00,000	72,42,720	70,36,028	73,17,154	77,37,338
Madras	13,21,254	13,30,390	13,62,770	13,86,350	14,45,610	15,34,300	15,72,850	15,94,670	16,53,530	17,15,431	17,09,554	18,35,552
Bombay	19,31,457	19,04,970	20,71,940	20,67,920	19,58,390	19,60,160	20,73,190	18,39,250	21,28,430	24,08,581	17,19,680	16,76,441
Grand Total ..	86,94,182	89,06,230	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331
Imperial*	—39,100	—1,02,030	—78,160	—79,970	—77,720	—74,860	—65,170	—67,920	—90,460	—81,115	—76,055	(III) SUR —81,358
Bengal†	3,66,623	3,63,270	3,97,570	3,89,280	4,52,640	6,80,810	5,35,840	4,85,990	5,93,700	6,62,533	6,35,106	6,18,233
United Provinces	7,73,303	7,24,000	7,46,840	7,21,940	6,58,480	5,38,480	4,68,820	5,96,090	6,72,360	6,02,024	7,06,769	10,11,326
Punjab	3,79,799	1,56,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530	6,19,010	1,89,310	4,63,499	5,09,223	6,26,313
Burma	24,86,434	38,55,000	39,22,600	35,18,790	37,62,230	42,50,130	50,18,650	59,24,700	53,64,610	53,99,727	32,27,481	38,48,790
Bihar and Orissa	..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	68,604	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990	92,820	2,10,960	2,01,549	1,83,851	2,52,701
Central Provinces ..	8,68,804	5,81,240	4,30,840	2,54,330	2,93,430	98,280	14,910	3,25,540	21,670	99,748	3,78,212	4,27,140
Coorg	96,037	1,07,590	86,900	66,910	49,410	21,370	43,890	47,970	88,190	66,691	87,909	1,01,293
North-West Frontier Province.	..	..	..	..	..	..	..	..	..	..	—6,498	47,038
Ajmer	5,813	—110	—1,280	—2,060	—90	—9,640	870	—1,880	—5,080	—6,136	—9,062	—6,641
Baluchistan	—9,888	—36,590	—43,000	—24,610	—26,840	—14,310	—12,290	—12,840	—11,620	—12,298	—9,768	—3,904
Andamans	92,429	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370	91,060	1,19,660	1,37,749	62,236	44,333
Imperial Forest College and Research Institute.	—42,559	—48,420	—63,540	—63,190	—63,640	—64,530	—58,030	—61,010	—70,340	—67,541	—72,745	—63,086
Forest Surveys (Imperial) ..	—26,625	—21,640	—27,660	—29,760	—29,440	31,570	—33,730	—33,680	—33,560	—33,664	—33,257	—30,951
Total ..	49,99,674	58,26,710	60,65,500	52,25,800	55,23,530	59,78,780	64,92,650	80,32,850	70,49,400	74,32,766	55,83,402	67,91,227
Madras	3,69,962	2,46,820	5,84,410	5,07,680	6,64,960	7,69,030	5,63,640	5,15,850	6,48,760	6,24,739	8,33,876	7,78,267
Bombay	13,53,192	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550	5,43,470	4,54,900	2,86,770	5,52,948	6,60,040	6,52,715
Grand Total ..	67,22,828	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,84,930	86,10,453	70,77,327	82,22,209

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, Office Establishment, and undistributable and petty local items and revenues and charges, on

† Includes figures up to 1910-11 for districts subsequently transferred to Bihar and Orissa.

‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred to Bengal.

MENT XIX.

throughout India during the 25 financial years from 1891-92.

1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	PROVINCE.
ENUE.													
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	
7,455	3,768	7,255	..	7,666	8,189	10,632	8,602	10,680	12,837	11,471	12,047	23,457	Imperial.*
10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11;84,845	10,80,640	11,67,444	11,22,442	16,00,601	16,16,111	13,04,4 6	11,45,610	Bengal.†
22,80,416	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	23,78,439	30,16,160	35,44,963	37,12,487	31,35,235	37,38,831	United Provinces
17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,633	12,17,988	13,10,077	12,39,073	13,54,,43	14,38,005	17,27,283	Punjab.
82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	19,92,032	93,58,077	1,00,70,117	99,67,594	1,09,22,393	1,14,25,4 0	97,07,604	96,09,217	Burma.
..	..	..	..	..	..	..	..	4,07,213	4,38,958	4,91,735	5,49,770	5,17,727	Bihar and Orissa.
6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,54,732	18,90,635	11,46,320	11,42,091	10,97,959	8,32,877	10,55,052	Assam.‡
19,98,032	20,13,459	24,49,131	24,01,150	22,90,128	20,78,162	20,78,340	21,14,226	25,49,854	31,71,815	31,86,453	32,72,529	32,78,262	Central Provinces and Berar.
2,24,031	1,93,087	2,45,419	2,35,909	2,74,756	2,24,330	2,13,129	2,70,055	2,95,170	2,81,652	3,29,227	1,93,237	4,49,155	Coorg.
1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	1,58,171	2,37,183	2,66,741	2,38,013	1,86,815	North-West Frontier Province.
13,884	17,297	15,002	18,335	29,864	27,615	23,990	33,846	26,361	36,596	33,897	31,170	23,445	Ajmer.
18,363	22,555	21,481	21,195	24,829	23,305	18,729	23,212	20,117	20,159	19,988	19,058	21,633	Baluchistan.
4,32,381	6,20,796	5,82,511	6,07,027	2,19,822	2,02,018	2,59,477	4,16,773	5,22,160	4,49,925	4,45,811	3,39,248	4,34,784	Andamans.
3,038	3,557	3,080	4,579	6,137	4,680	4,909	4,080	5,550	7,611	5,806	8,617	6,995	Imperial Forest College and Research Institute.
431	..	..	..	..	..	..	..	..	..	..	..	..	Forest Surveys (Imperial).
1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	1,98,06,819	2,05,57,869	2,31,04,817	2,39,98,069	2,10,88,905	2,23,08,266	Total.
26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	38,90,919	41,78,381	38,80,411	41,68,921	41,12,473	42,00,320	39,41,537	41,06,838	Madras.
27,51,539	30,20,558	38,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	43,30,569	49,92,519	51,03,156	46,80,242	47,01,263	Bombay.
2,22,16,747	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	2,90,57,359	3,22,09,809	3,33,01,545	2,97,09,784	3,11,16,367	GRAND TOTAL.
PENDITURE.													
89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	94,714	1,04,162	99,296	99,478	1,09,502	Imperial.*
7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	7,06,374	6,60,794	6,40,157	6,70,035	5,03,635	Bengal.†
10,81,488	13,91,583	14,05,182	13,06,651	11,94,013	12,22,436	12,09,308	12,37,938	13,63,673	16,29,264	18,96,014	23,17,740	25,66,307	United Provinces.
11,56,415	10,12,354	12,65,664	11,44,403	11,76,696	8,51,627	6,67,752	7,40,542	7,65,146	7,99,176	9,19,177	8,89,302	9,23,878	Punjab.
33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	38,42,799	41,31,162	41,38,584	42,74,901	46,80,447	48,86,241	Burma.
..	..	..	..	..	..	.	..	3,00,916	3,75,894	3,55,648	3,81,371	3,61,550	Bihar and Orissa.
4,25,494	5,03,656	5,93,910	7,07,860	8,00,373	8,91,349	10,12,541	10,87,340	8,41,013	8,08,911	9,10,240	8,98,339	7,55,214	Assam.†
12,80,966	13,20,615	13,07,153	13,42,898	15,83,407	17,53,307	15,86,852	15,89,533	18,38,379	19,46,735	19,53,129	19,36,569	17,34,336	Central Provinces and Berar.
92,191	83,820	95,748	1,02,855	1,04,819	99,595	1,07,822	1,07,679	1,21,174	1,61,544	1,78 514	1,75,833	1,76,033	Coorg.
60,603	74,958	95,258	93,650	88,400	81,413	77,391	72,492	89,436	1,22,173	1,31,023	1,25,539	1,04,795	North-West Frontier Province.
16,680	15,611	17,131	16,715	18,188	19,916	19,272	19,918	22,343	20,714	23,595	21,733	25,152	Ajmer.
21,697	24,672	25,743	26,322	31,258	36,586	26,549	26,387	28,947	28,527	25,310	26,000	27,995	Baluchistan.
2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	2,26,963	2,61,732	2,55,141	2,74,676	2,58,056	4,30,832	Andamans.
59,339	61,424	80,669	1,37,486	1,58,038	1,83,191	1,96,174	2,19,183	2,63,441	2,68,445	2,98,338	3,31,091	2,78,518	Imperial Forest College.
33,935	28,229	30,044	30,389	27,060	39,128	41,062	41,140	38,798	35,809	37,743	42,353	48,663	Forest Surveys (Imperial).
86,40,126	90,77,954	98,65,826	95,92,956	97,76,649	97,64,900	95,17,931	99,47,805	1,08,67,248	1,13,64,873	1,20,17,761	1,28,57,840	1,30,23,251	Total.
17,50,930	19,86,098	22,66,602	24,80,660	27,80,857	29,17,261	33,39,635	32,25,801	34,14,882	31,50,482	29,35,817	28,60,685	29,27,318	Madras.
17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	20,63,088	20,70,117	26,64,436	26,94,455	25,80,877	24,87,925	26,42,038	Bombay.
1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,433	1,47,26,034	1,49,20,654	1,52,44,023	1,69,46,566	1,72,07,810	1,75,43,455	1,82,06,450	1,85,92,607	GRAND TOTAL.
PLUS.													
—81,890	—79,290	—76,512	—95,472	—92,538	—95,994	—93,700	—83,944	—84,034	—91,325	—87,825	—87,431	—86,045	Imperial*
3,62,015	4,78,883	5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,150	4,16,068	9,39,807	9,75,954	6,33,561	5,51,975	Bengal.†
11,99,008	10,05,735	10,28,246	11,96,013	12,15,732	9,52 970	10,91,586	11,40,501	16,52,487	19,14,699	18,16,473	8,17,495	11,72,524	United Provinces.
5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	4,37,165	3,64,881	4,77,446	5,44,931	4,39,857	4,35,766	5,48,703	8,03,405	Punjab.
49,16,131	55,12,332	63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	58,36,432	67,83,809	71,50,529	50,27,247	48,12,976	Burma.
..	..	..	..	..	..	..	..	1,06,297	63,064	1,36,087	1,65,408	1,56,177	Bihar and Orissa.
2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	3,05,307	3,33,180	1,87,729	—65,462	2,99,838	Assam.‡
7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	4,91,483	5,24,693	7,11,475	12,25,080	12,33,324	13,35,960	15,43,926	Central Provinces and Berar.
1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	1,68,376	1,73,996	1,20,108	1,50,713	23,404	2,72,522	Coorg.
41,230	16,033	33,271	89,564	1,50,090	41,369	95,914	1,32,850	68,735	1,15,010	1,35,718	1,12,420	82,020	North-West Frontier Province.
—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	13,928	4,018	6,832	10,302	9,437	—1,707	Ajmer.
—3,334	—2,117.	—4,262	—5,127	—6,429	—13,281	—7,820	—3,175	—8,830	—8,368	—5,322	—6,942	—6,362	Baluchistan.
1,66,260	2,78,365	2,46,526	3,11,891	62,555	21,077	65,318	1,89,810	2,60,428	1,94,784	1,71,135	81,192	3,952	Andamans.
—56,301	—57,867	—77,589	—1,32,907	—1,51,901	—1,78,511	—1,91,265	—2,15,103	—2,57,891	—2,60,834	—2,92,532	—3,22,474	—2,71,523	Imperial Forest College.
—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	—38,798	—35,809	—37,743	—42,353	—48,663	Forest Surveys (Imperial).
81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,826	98,59,014	96,90,621	1,17,39,944	1,19,80,308	82,30,165	92,85,015	Total.
9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	7,54,039	9,61,991	12,64,503	10,80,852	11,79,520	Madras.
9,75,602	11,16,954	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47,807	16,66,133	23,00,064	25,13,279	21,92,317	20,59,225	Bombay.
1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	1,21,10,793	1,50,01,999	1,57,58,090	1,15,03,334	1,25,23,760	GRAND TOTAL.

ccount of Indore and Bangalore. Excludes Home charges.

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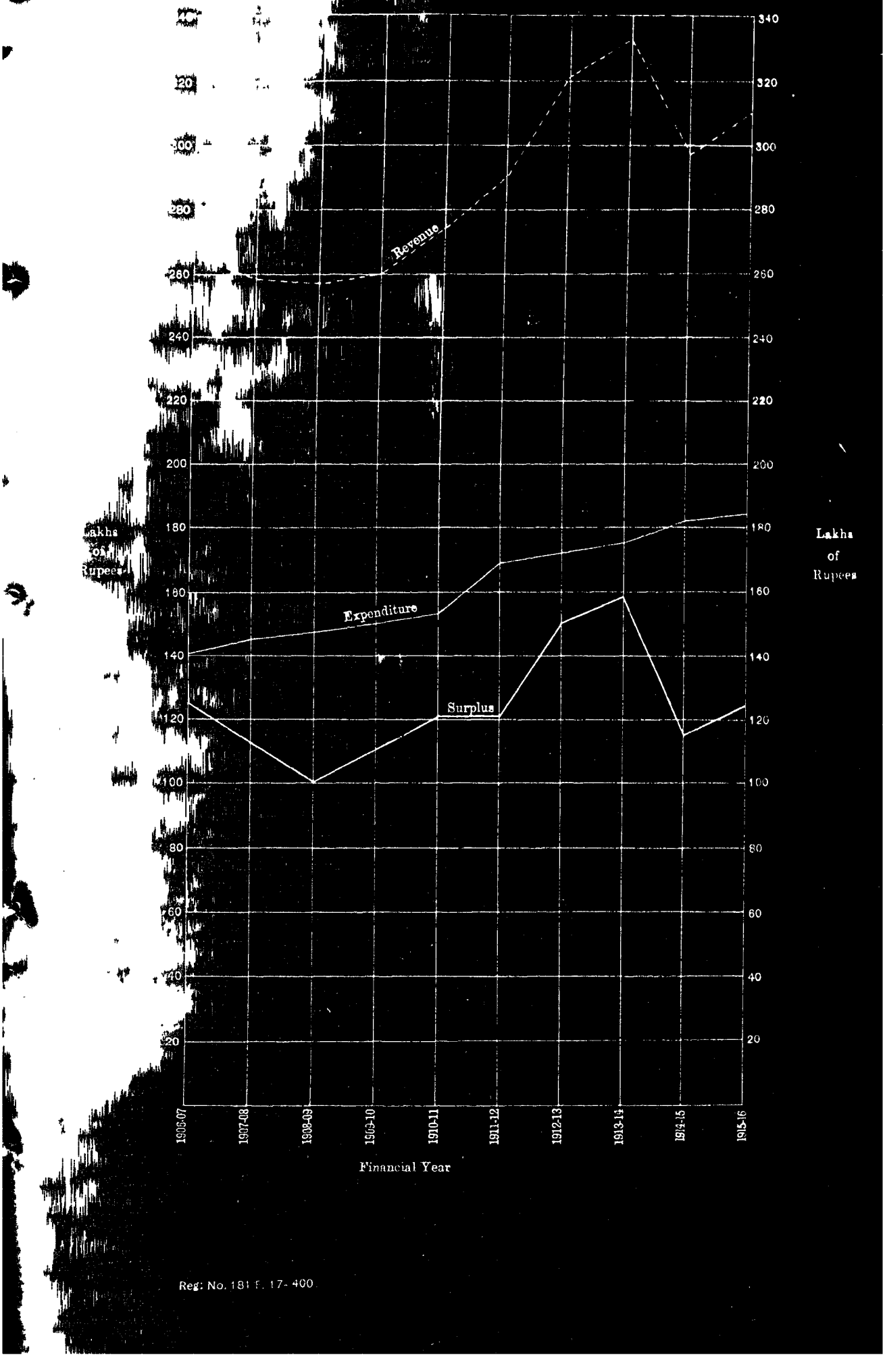
DIAGRAM SHOWING
ANNUAL FOREST REVENUE, EXPENDITURE & SURPLUS
For the 10 years 1906-07 to 1915-16



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ANNUAL RETURN

OF

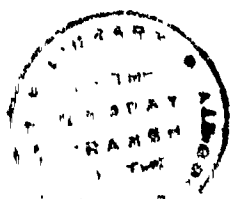
STATISTICS

RELATING TO

FOREST ADMINISTRATION

IN

BRITISH INDIA.



FOR THE YEAR

1916–17.

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APPENDIX.

Diagram showing annual forest revenue, expenditure and surplus for the 10 years 1907-08 to 1916-17.

STATEMENT I.

Area of forests under the control of the Forest Department.

Province.		Forest area in square miles.				Percentage of forests to whole area of Province.	Remarks.
Name.	Area in square miles.	Reserved.	Protected.	Unclassed State.	Total.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	78,875	(a) 4,888	(b) 1,711	4,030	10,629	13·5	
United Provinces ..	1,06,725	(c) 5,738	1,709	63	7,510	7·0	
Punjab	96,650	(d) 2,133	(e) 4,169	909	7,211	7·5	
Burma	*2,25,124	29,110	..	1,11,647	1,40,757	62·5	
Bihar and Orissa ..	82,504	1,746	(f) 1,063	..	2,814	3·4	
Assam	48,915	4,911	..	17,161	22,072	45·1	
Central Provinces (including Berar).	99,948	(g) 19,672	..	..	19,672	19·7	
Coorg	1,582	520	..	..	520	32·9	
North-West Frontier Province.	13,057	(h) 236	(i) ..	..	236	1·8	
Ajmer	2,449	142	(j)	..	142	5·8	
Baluchistan (portions under British Administration).	54,228	313	..	472	785	1·4	
Andamans	3,143	83	..	2,124	2,207	70·2	
Madras	1,42,254	18,810	..	(k) 725	19,535	13·7	
Bombay (including Sind)	1,23,131	(l) 12,006	(l) 483	..	12,489	10·1	
Total 1916-17 ..	10,78,585†	1,00,308	9,140	1,37,131	2,46,579	22·9	
„ 1915-16 ..	10,79,481†	99,205	9,712	1,40,083	2,49,000	23·100	
„ 1914-15 ..	10,79,149§	97,580	10,405	1,41,882	2,49,867	23·15	
„ 1913-14 ..	10,79,638‖	96,207	8,390	1,40,925	2,45,612	22·7	
„ 1912-13 ..	10,79,163¶	96,867	8,492	1,33,564	2,38,923	22·1	

(a) Excludes 18 square miles of reserved forests not under the management of the Forest Department.

(b) Excludes 54 square miles not under the control of the Forest Department.

(c) Includes 156 square miles of leased forests.

(d) Includes 364 square miles of leased forests but excludes 111 square miles of reserved forests not under the control of the Forest Department.

(e) Excludes, 103 square miles not under the control of the Forest Department.

(f) Excludes 974 square miles not under the control of the Forest Department.

(g) Excludes 23 square miles not under the control of the Forest Department.

(h) Excludes 14 square miles of military and civil reserved forests.

(i) 121 square miles of civil protected forests are not shown.

(j) There are only 115 acres of protected forests in Ajmer.

(k) Reserved lands.

(l) Excludes forests in charge of the Revenue Department.

§ Excludes 575 square miles for the Delhi Province and 25 square miles for the British Pargana of Manpur (Central India).

‖ Includes the area of the Shan States, 54,728 square miles. The forests of these States are under the control of the Forest Department.

* Including 54,728 square miles for the Shan States.

† Excluding 573 square miles for the Delhi Province and 25 square miles for the British Parganas of Manpur (Central India).

STATEMENT II.

Progress made in Forest Settlements during the year 1916-17.

Province.	Forest Division.	Civil district or territory.	Name of Forest.	Area in square miles.			Cost during year.		Entire cost per square mile of areas finally settled.	Government Notification of Settlement.	
				Finally settled during year.	In hand at commencement of year.	Taken in hand during year.	In Forest Accounts.	In other Accounts.		Number	Date.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Bengal	....	....	....	17	27	1	9	..	12	..	..
United Provinces ..	....	....	....	571	1,709	1	9,443	..	(a) 213	..	..
Punjab	....	....	....	19	1	11	..	..	..	..	..
Burma	....	....	....	488	946	699	18,262	..	(b)	..	..
Bihar and Orissa ..	....	....	....	19	19	1	368	..	149	..	..
Assam	....	....	....	32	450	283	3,188	..	358	..	..
Central Provinces ..	....	....	....	33	33	7	604	..	..	..	..
Coorg	....	....	....	..	..	..	..	..	..	..	..
North-West Frontier Province.	....	....	....	..	..	..	..	..	..	..	..
Ajmer	....	....	....	..	..	..	..	..	..	..	..
Baluchistan ..	....	....	....	..	313	..	..	..	..	..	..
Andamans ..	....	....	....	2	83	2	..	..	..	..	..
Madras	....	....	....	73	566	2	92,229	..	..	..	..
Bombay	....	....	....	7	4,589	26	2,938	..	..	..	..
Total 1916-17 ..	....	....	....	1,261	8,736	1,033	1,27,041	..	..	..	..
„ 1915-16 ..	....	....	....	1,988	3,981	317	84,165	..	..	..	..
„ 1914-15 ..	....	....	....	1,292	2,772	3,193	1,66,345	..	..	..	..
„ 1913-14 ..	....	....	....	962	1,573	1,434	1,69,907	..	..	..	..
„ 1912-13 ..	....	....	....	986	1,451	1,025	16,817	..	..	..	..

(a) This is the entire cost per square mile of areas finally settled in both West and East Almora Divisions.

Entire cost per square mile of areas finally settled in the North and South Garhwal and Nainital Divisions will be given when all the areas in those divisions have been finally settled.

(b) Not yet finally settled.

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	77	1,066	566	1,709	144	1,131	2,984	444	8,963
United Provinces ..	1,097	2,224	7,900	11,221	738	2,272	14,231	27,864	9,564
Punjab	115	1,440	6,997	8,552	29	1,252	9,833	1,109	2,591
Burma	366	2,508	14,578	17,452	470	3,157	21,079	6,132	17,648
Bihar and Orissa ..	178	3,492	529	4,199	65	266	4,530	1,963	1,332
Assam	114	686	1,053	1,853	70	1,906	3,829	5,929	3,472
Central Provinces ..	133	9,336	22,567	32,036	139	3,094	35,269	1,719	16,699
Coorg	..	..	475	475	5	56	536	47	108
North-West Frontier Province.	..	77	700	777	..	139	916	..	444
Ajmer	..	1	242	243	..	158	401	..	32
Baluchistan ..	..	..	460	460	..	77	537	..	..
Andamans ..	..	..	24	24	33	72	129	..	..
Madras	123	18,808	14,110	33,041	442	1,887	35,370	4,564	21,996
Bombay	854	16,120	21,650	38,624	373	2,867	41,864	5,646	4,883
Total 1916-17 ..	3,057	55,758	91,851	1,50,666	2,508	18,334	1,71,508	55,417	87,732
„ 1915-16 ..	5,738	48,025	97,263	1,51,026	4,577	18,437	1,74,040	82,788	76,816
„ 1914-15 ..	4,128	55,091	88,664	1,47,882	7,138	18,898	1,73,919	75,306	1,03,691
„ 1913-14 ..	1,689	51,971	90,860	1,44,700	3,185	17,346	1,65,051	52,179	97,765
„ 1912-13 ..	2,200	53,881	89,557	1,46,338	4,301	18,025	1,67,963	51,150	85,687

STATEMENT IV.

Forest Survey operations.

Province.	Forest surveyed.	Nature of survey operations. 1st Detail Survey. Area.	1st Detail Survey. Cost rate.	2nd Detail Survey. Area.	2nd Detail Survey. Cost rate.	4th Detail Survey. Area.	4th Detail Survey. Cost rate.	Total area of Detail Survey. 1916-1917.	Total area of Detail Survey. Total up to date.	Expenditure of the year including mapping and publishing charges debitable to Forests.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Sq. m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	3,265	..	
United Provinces ..	Haldwani ..	..	..	..	..	..	..	121	4,963	26,389	(a) 951 linear miles of boundaries have been traversed on the 4-inch scale. (b) 398 linear miles of boundaries have been traversed on the 4-inch scale.
	Naini Tal (a) ..	..	..	..	..	121	29-3				
	Ramnagar (b)	..	..	..	..	..	..				
Punjab	..	..	..	..	..	..	..	..	4,365	439	
Burma	Mansi (c) ..	..	..	..	..	..	..	238	16,626	558	(c) 62 linear miles of boundaries have been traversed on the 4-inch scale. (d) 154 linear miles of boundaries have been traversed on the 4-inch scale. (e) 143 linear miles of boundaries have been traversed on the 4-inch scale. (f) 195 linear miles of boundaries have been traversed on the 4-inch scale.
	Myitkyina (d)	..	..	60	39-5	..	..				
	Meiktila ..	..	..	178	63-6	..	..				
	Katha (e) ..	..	..	..	..	..	..				
	Mandalay (f) ..	..	..	..	..	..	..				
Bihar and Orissa ..	Singhbhum and Chaibassa.	..	..	..	..	..	..	..	1,762	..	
Assam	Kamrup ..	..	..	..	..	..	..	132	3,664	..	(g) 143 linear miles of boundaries have been traversed on the 4-inch scale. (h) Excludes 1·54 square miles of unreserved land and 122 linear miles have been traversed on the 4-inch scale. (i) 6 linear miles have been traversed on the 4-inch scale. (j) 105 linear miles have been traversed on the 4-inch scale.
	Darrang ..	..	..	..	..	..	..				
	Nowgong ..	..	..	..	..	..	..				
	Sibsagar (g) ..	..	..	(h) 86	63-8	..	..				
	Lakhimpur ..	..	..	(i) 46	63-8	..	..				
Central Provinces ..	Berar (j) ..	..	..	..	..	..	..	..	19,500	882	
Coorg	..	..	..	..	..	..	..	..	478	60	
North-West Frontier Province.	..	..	..	..	..	..	..	..	445	..	
Ajmer	..	..	..	..	..	..	..	..	144	..	
Baluchistan ..	..	..	..	..	..	..	..	..	227	..	
Andamans (k) ..	..	..	..	..	..	..	..	..	527	575	(k) 93 linear miles have been traversed on the 4-inch scale. (l) 27 linear miles have been traversed on the 4-inch scale. (m) Cost of mapping, publishing and special surveys only. Excludes Forest Map Office. Head Quarters charges Rs. 48,419.
Madras	Nellore ..	..	..	65	31-7	115	31-7	180	15,588	..	
Bombay (l) ..	..	..	..	..		..	..	..	12,983	..	
Total 1916-17 ..	..	..	..	435	..	236	..	671	84,537	(m) 28,903	(n) Cost of mapping publishing and special surveys only. Excludes Forest Map Office Head Quarters charges Rs. 48,624.
1915-16 ..	..	128	..	1,220	..	671	..	2,019	83,866	(n) 45,084	(o) Cost of mapping publishing and special surveys only. Excludes Forest Map Office Head Quarters charges Rs. 43,631.
1914-15 ..	..	85	..	826	..	34	..	945	81,847	(o) 48,640	(p) Cost of mapping, publishing and special surveys only. Excludes Forest Map Office. Head Quarters charges Rs. 39,050.
1913-14 ..	..	312	..	877	..	22	..	1,211	80,902	(p) 42,417	(q) Cost of mapping, publishing and special surveys only. Excludes Forest Map Office Head Quarters charges Rs. 36,220.
1912-13 ..	..	59	..	793	..	..	..	852	79,691	(q) 2,872	

STATEMENT V.

Progress made in Working Plans.

Province.	AREA UNDER SANCTIONED WORKING PLANS.					AREA NOT UNDER WORKING PLANS.				REVISIONS.			Expenditure on working plans during the year.
				At close of year.			Plans not under preparation.						
	At commencement of the year.	Added during the year.	Deducted during the year.	Actual area.	Percentage of total forest area (as shown in column 10).	Plans under preparation.	Required at present.	Not required at present.	Total forest area in Statement I. (Total of columns 5, 7, 8 and 9.)	Due or required.	In progress at the end of the year.	Revised plans sanctioned during the year.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	per cent	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.
Bengal	4,982	..	..	4,982	47	19	1,610	4,090	10,701*	648	648	..	1,050
United Provinces ..	4,075	..	1	4,074	54	2,781	585	70	7,510	1,080	1,255	..	35,940
Punjab	3,884	3	11	3,876	54	177	..	3,159	7,212	3,198	3,198	19	950
Burma	9,064	621	..	9,685	7	1,460	15,685	1,13,927	1,40,757	..	344	..	3,902
Bihar and Orissa ..	1,460	..	..	1,460	83	99	..	2,229	3,788†	..	..	..	..
Assam	1,120	..	..	1,120	5	134	2,391	18,427	22,072	3	64	..	..
Central Provinces ..	15,212	577	1	15,788	80	1,309	57	2,518	19,672	1,112	1,567	873	593
Coorg	520	..	..	520	100	..	..	..	520	..	..	..	1,080
North-West Frontier Province.	236	..	..	236	100	..	..	..	236	236	..	..	..
Ajmer	140	2	..	142	100	..	..	..	142	..	..	142‡	..
Baluchistan	..	..	..	..	..	313	..	472	785	..	..	..	..
Andamans	708	..	..	708	33	..	..	1,499	2,207	..	..	..	575
Madras	7,796	494	..	8,290	42	1,805	6,930	2,510	19,535	..	..	..	..
Bombay	7,566	149	8	7,707	60	1,243	607	3,186	12,743§	2,206	3,089	91	14,925
Total 1916-17 ..	56,763	1,846	21	58,588	23·6	9,340	27,865	1,52,087	2,47,880	8,483	10,165	1,125	59,015
„ 1915-16 ..	56,151	1,340	47	57,444	23·1	11,559	17,862	1,63,463	2,50,328	11,059	8,510	770	43,392
„ 1914-15 ..	52,867	2,762	..	55,629	22·3	..	24,990	1,59,485	2,49,867	..	..	..	..
„ 1913-14 ..	50,601	3,325	..	53,926	22	..	20,663	1,59,254	2,45,612	..	..	..	..
„ 1912-13 ..	50,854	868	..	51,722	19	..	20,102	1,54,667	2,38,923	..	..	..	..

*Includes 18 square miles of reserved and 54 square miles of protected forests not under the control of the Forest Department.
† Includes 974 square miles not under the control of the Forest Department.
‡Revised plan is in force but Government of India's sanction not yet received.
§ Includes 254 square miles of reserved forests in charge of the Revenue Department not shown in Statement I.

STATEMENT VI.

Expenditure on commnications and buildings.

Province.	New Works.		Repairs.		Other Works.	Total.
	Buildings.	Roads.	Buildings.	Roads.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	13,874	8,220	20,902	14,455	5,001	62,452
United Provinces.. ..	22,134	26,730	41,942	69,264	11,316	1,71,386
Punjab	6,382	10,170	16,241	7,104	4,628	44,525
Burma	38,160	54,707	54,430	46,803	17,754	2,11,854
Bihar and Orissa ..	16,243	25,499	11,490	13,148	2,930	69,310
Assam	8,578	13,774	15,427	16,015	7,485	61,279
Central Provinces ..	27,860	53,997	36,791	35,981	16,547	1,71,176
Coorg	8,974	3,345	3,876	5,023	2,355	23,573
North-West Frontier Province.	450	305	2,549	2,367	195	5,866
Ajmer	274	..	122	467	3,211	4,074
Baluchistan	..	..	155	..	..	155
Andamans	3,592	861	69	1,203	46	5,771
Madras	57,907	93,095	44,481	64,033	7,876	2,67,392
Bombay	20,474	37,694	13,153	40,329	24,615	1,36,265
Total 1916-17	2,24,902	3,28,397	2,61,628	3,16,192	1,03,959	12,35,078
„ 1915-16	2,99,699	2,18,516	2,46,691	3,10,047	91,133	11,66,086
„ 1914-15	5,59,391	3,75,798	2,75,747	5,75,596	1,22,358	17,08,890
„ 1913-14	5,81,607	5,11,490	2,61,595	3,37,873	1,23,700	18,16,265
„ 1912-13	5,78,632	3,43,091	2,43,413	2,89,256	1,34,231	15,88,623

STATEMENT VII.

Breaches of the forest rules.

Province.		Cases pending from 1915 16.	NEW CASES OF THE YEAR.					Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
									Conviction.		Acquittals.		Total.		
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Bengal	A.	25	5	336	89	79	509	534	411	1,105	45	251	456	1,356	76
	B.	36	2	867	940	126	1,935	1,971	1,947	3,144	..	..	1,947	3,144	24
	C.	..	42	89	48	19	198	198	..	..	..	..	..	..	..
	Total ..	61	49	1,292	1,077	224	2,642	2,703	2,358	4,249	45	251	2,403	4,500	100
United Provinces ..	A.	43	27	129	57	51	264	307	215	1,271	45	157	260	1,428	47
	B.	303	76	2,296	1,492	151	4,015	4,318	3,691	15,725	161	382	3,852	16,107	466
	C.	..	65	273	48	16	402	402	..	..	..	..	..	..	..
	Total ..	346	168	2,698	1,597	218	4,681	5,027	3,906	16,996	206	539	4,112	17,535	513
Punjab	A.	160	10	476	209	78	773	933	630	1,191	68	261	698	1,452	213
	B.	15	31	3,621	4,616	110	8,378	8,393	8,268	11,971	..	..	8,268	11,971	125
	C.	..	107	65	21	13	206	206	..	..	..	..	..	..	..
	Total ..	175	148	4,162	4,846	201	11,157	9,532	8,898	13,162	68	261	8,966	13,423	338
Burma	A.	379	6	799	27	229	1,061	1,440	1,002	1,803	142	350	1,144	2,153	..
	B.	588	11	3,508	324	1,402	5,245	5,833	4,851	6,814	..	..	4,851	6,814	..
	C.	..	24	32	..	3	59	59	..	..	..	..	..	..	..
	Total ..	967	41	4,339	351	1,634	6,365	7,332	5,853	8,617	142	350	5,995	8,967	1,004
Bihar and Orissa ..	A.	36	7	84	9	43	143	179	128	416	19	77	147	493	29
	B.	77	7	1,002	143	47	1,199	1,276	1,158	3,663	18	88	1,176	3,751	93
	C.	..	100	5	..	..	105	105	..	..	..	..	..	..	..
	Total ..	113	114	1,091	152	90	1,447	1,560	1,286	4,079	37	165	1,323	4,244	122
Assam	A.	99	2	231	29	104	366	465	328	865	52	394	380	1,259	85
	B.	60	2	441	73	139	655	715	657	1,670	..	..	657	1,670	58
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	159	4	672	102	243	1,021	1,180	985	2,535	52	394	1,037	2,929	143
Central Provinces ..	A.	40	12	51	101	24	188	228	146	302	59	211	205	513	23
	B.	1,483	79	5,094	7,424	629	13,274	14,757	13,334	40,031	9	33	13,343	40,064	1,414
	C.	..	109	460	9	6	584	584	..	..	..	..	..	..	..
	Total ..	1,523	200	5,605	7 534	659	14,046	15,569	13,480	40,333	68	244	13,548	40,577	1,437
Coorg	A.	1	..	1	9	1	11	12	10	18	..	..	10	18	2
	B.	..	..	6	11	1	18	18	18	20	..	..	18	20	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	1	..	7	20	2	29	30	28	38	..	..	28	38	2
North-West Frontier Province.	A.	55	3	84	19	3	109	164	113	(a) 235	5	20	118	(c) 255	43
	B.	..	..	1,143	1,003	12	2,158	2,158	2,158	(b) 3,623	..	..	2,158	(d) 3,623	..
	C.	..	26	20	11	3	60	60	..	..	..	..	..	..	..
	Total ..	55	29	1,247	1,033	18	2,327	2,382.	2,271	3,858	5	20	2,276	3,878	43

(a) And 4 villages (number of persons not given).
(b) And 5 villages (number of persons not given).
(c) And 4 villages (number of persons not given).
(d) And 5 villages (number of persons not given).

STATEMENT VII—*contd.*

Breaches of forest rules—contd.

Province.		NEW CASES OF THE YEAR.						Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
		Cases pending from last year.	Injury to forest by fire.	Unauthorised felling or improper removal of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Totals.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer	A.	17	..	6	5	1	12	29	25	50	2	3	27	53	2
	B.	40	2	481	297	2	782	822	801	1,892	4	11	805	1,903	17
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	57	2	487	302	3	794	851	826	1,942	6	14	832	1,956	19
Baluchistan	A.	1	3	25	8	..	36	37	26	84	6	19	32	103	5
	B.	..	1	44	57	..	102	102	100	175	..	..	100	175	2
	C.	..	..	2	..	..	2	2	..	..	..	..	..	..	..
	Total ..	1	4	71	65	..	140	141	126	259	6	19	132	278	7
Andamans	A.	..	..	10	..	..	10	10	10	16	..	..	10	16	..
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	..	..	10	..	..	10	10	10	16	..	..	10	16	..
Madras	A.	2,631	50	4,275	1,596	296	6,217	8,848	6,989	20,169	449	1,696	7,438	21,865	1,267
	B.	3,000	86	13,782	5,313	781	19,962	22,962	6,827	12,601	11,203	25,528	18,030	38,129	3,768
	C.	1	1,217	419	257	15	1,908	1,909	..	..	..	..	..	..	..
	Total ..	5,632	1,353	18,476	7,166	1,092	28,087	33,719	13,816	32,770	11,652	27,224	25,468	59,994	5,035
Bombay	A.	266	103	495	199	77	874	1,140	734	1,697	115	323	849	2,020	282
	B.	915	259	7,610	8,306	1,155	17,330	18,245	16,188	35,418	..	..	16,188	35,418	2,056
	C.	..	1,656	2,271	45	21	3,996	3,996	..	..	..	..	..	..	..
	Total ..	1,181	2,018	10,376	8,550	1,253	22,200	23,381	16,922	37,115	115	323	17,037	37,438	2,338
Grand Total ..	A.	3,753	228	7,002	2,277	986	10,573	14,326	10,767	29,222	1,007	3,762	11,774	32,984	2,074
	B.	6,517	556	39,895	29,999	4,555	75,053	81,570	59,998	1,36,747	11,395	26,042	71,393	162,789	8,023
	C	1	3,346	3,636	539	96	7,520	7,521	..	..	..	..	..	..	..
Total 1916-17	..	10,271	4,130	50,533	32,815	5,637	93,146	103,417	70,765	1,65,969	12,402	29,804	83,167	1,95,773	(e) 11,101
„ 1915-16	..	11,165	4,884	52,034	33,990	5,183	96,102	107,198	66,057	1,49,105	20,592	45,041	90,675	1,94,156	(d) 103,398
„ 1914-15	..	10,067	3,634	51,654	32,362	5,447	93,097	103,164	78,179	1,74,348	3,591	10,149	85,838	1,84,497	(c) 11,179
„ 1913-14	..	9,052	4,012	50,899	33,938	5,541	94,390	101,531	83,026	1,74,084	1,114	4,139	88,411	1,78,223	(b) 10,084
„ 1912-13	..	8,953	3,108	46,501	28,052	5,294	82,940	90,162	74,137	1,61,925	1,297	4,916	75,416	1,66,841	(a) 9,114

N.B.—A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.

(*a*) Excludes 3,563 undetected cases and 2,069 cases struck off.
(*b*) „ 1,116 „ „ 1,910 „ „
(*c*) „ 2,756 „ „ 2,391 „ „
(*d*) „ 3,375 „ „ 1,716 „ „
(*e*) „ 3,363 „ „ 1,383 „ „

*Burma has given the figures for the total of pending cases at the close of the year, *viz.*, 1,064, but has not shown separately "A" and "B" cases.

STATEMENT VIII.

Area protected from fire.

Province.	Area in square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected.		Average of past five years to 1915-16.	1916-17.	
Bengal	577	564	11·8	1·6	2·3	
United Provinces	3,617	3,606	63·0	3·9	·3	
Punjab	1,070	1,065	50·2	2·4	·5	
Burma	2,474	2,387	8·5	5·0	3·5	
Bihar and Orissa ..	(a) 1,693	(a) 1,675	96·9	(b)	1·1	(a) Excludes protected forests under fire protection. (b) Refers to the old province of Eastern Bengal and Assam.
Assam	141	140	2·9	2·5	·3	
Central Provinces	10.335	10,243	52·5	2·1	·9	
Coorg	123	123	23·7	2·2	·09	
North-West Frontier Province	85	84	36·0	9·6	·09	
Ajmer	141	141	99·3	..	·02	
Madras	15,962	14,756	84·9	7·9	7·6	
Bombay	12,246	11,804	101·9	3·8	3·6	
Total 1916-17	48,464	46,588	48·3	4·7	3·9	
„ 1915-16	49,051	45,585	46·0	4·1	7·1	
„ 1914-15	50,203	48,487	51·4	4·5	3·4	
„ 1913-14	49,970	47,983	51·9	4·6	4·0	
„ 1912-13	51,659	49,833	53·3	5·2	3·5	

STATEMENT IX.

Causes of forest fires.

Province.	Fires originating in Departmental Fire Conservancy operations.		External fires crossing the fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
Bengal	..	..	3	6·4	20	1·4	3	·2	14	5	40	13
United Provinces ..	29	1·1	8	·2	28	·5	10	8·2	25	1	100	11
Punjab	2	1	11	..	109	1	19	4·2	19	..	160	6·2
Burma	16	2·1	19	4·2	47	14·8	50	21·5	52	44·7	184	87·3
Bihar and Orissa ..	1	..	4	1	..	..	25	4·7	29	17·5	59	23·2
Assam	..	..	..	..	4	·2	..	..	1	·2	5	0·4
Central Provinces ..	35	9·9	19	14·1	39	31·2	7	4	75	32·9	175	92·1
Coorg	3	..	..	..	..	..	2	·1	..	..	5	..
North-West Frontier Province.	..	..	2	..	13	..	9	..	..	..	24	..
Ajmer	1	..	..	..	3	..	..	..	4	..	8	..
Baluchistan	..	..	1	..	3	..	..	..	..	..	4	..
Andamans	..	..	..	..	..	..	..	..	..	..	..	..
Madras	66	57·8	264	247·4	416	99	652	450·9	730	492·5	2,128	1,347·6
Bombay	73	11·2	187	20·5	482	87·3	194	45·2	1,117	278·2	2,053	442·4
Total 1916-17 ..	226	83·1	518	293·8	1,164	235·4	971	539·0	2,066	872·0	4,943	2,023·2
„ 1915-16 ..	276	155·1	692	747·8	1,447	500·0	1,272	1002·4	2,332	1,400·9	6,019	3,806·3
„ 1914-15 ..	255	96·9	419	373·0	1,068	250·2	927	297·7	1,609	664·1	4,278	1,681·8
„ 1913-14 ..	319	148·2	431	426·1	1,278	332·7	690	359·0	2,038	723·6	4,756	1,989·6
„ 1912-13 ..	227	79·8	409	212·7	870	207·5	606	392·3	1,531	999·4	3,643	1,891·6

STATEMENT X.

Area closed and open to grazing.

Province.	Area in square miles.							Remarks.
	Closed to all animals.		Open to grazing.				Total area.	
			Of all animals.		*Of all animals except browsers (camels, sheep and goats).*			
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Bengal	5,802	7	4,747	..	82	63	(a) 10,701	(a) Includes 18 sq. miles of other reserves and 54 sq. miles of other protected forests.
United Provinces ..	2,233	155	4,117	..	1,003	2	7,510	
Punjab	388	260	5,829	153	432	150	7,212	
Burma	22,573	..	(b) 1,11,647	221	2,083	4,233	1,40,757	(b) Unclassed forests.
Bihar and Orissa ..	1,386	..	1,339	..	1,063	..	(c) 3,788	(c) Includes 974 sq. miles not under the control of the Forest Department.
Assam	3,988	113	17,428	71	472	..	22,072	
Central Provinces ..	3,106	411	5,997	..	10,158	..	19,672	
Coorg	60	446	..	..	14	..	520	
North-West Frontier Province.	76	..	47	..	58	55	236	
Ajmer	67	72	3	..	..	..	142	
Baluchistan ..	195	..	(d) 568	9	13	..	785	(d) Includes 472 sq. miles of unclassed forests.
Andamans ..	83	..	2,124	..	..	..	2,207	
Madras	3,589	176	14,484	1,282	2	2	19,535	
Bombay	2,219	223	3,552	..	8,646	348	(e) 14,988	(e) Includes 2,499 sq. miles not under the charge of the Forest Department.
Total 1916-17 ..	45,765	1,863	1,71,882	1,736	24,026	4,853	2,50,125	
,, 1915-16 ..	44,784	6,856	1,77,732	..	22,789	440	2,52,601	
,, 1914-15 ..	45,021	6,266	1,78,869	..	22,975	428	2,53,559	
,, 1913-14 ..	43,591	6,699	1,75,336	..	23,302	436	2,49,364	
,, 1912-13 ..	42,692	7,297	1,69,345	..	22,713	482	2,42,529	

STATE

Protection

PROVINCE.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.									
	AT FULL RATES.			AT PRIVILEGED RATES.						
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	1,758	1,103	247	..	24	107	47,721	77	..	10
United Provinces ..	70,172	177,191	121,128	992	3,438	18,474	87,188	24,083	4	1,258
Punjab	39,661	51,732	343,099	18,571	656	1,909	15,378	314,533	184	551
Burma	5,998	21,286	1,400	..	71	199	227	..	..	..
Bihar and Orissa ..	6,837	29,920	6,722	..	36	9,007	1,36,559	14,688	..	..
Assam	1,01,188	56,060	1,123	..	490	..	..	..	..	..
Central Provinces ..	2,80,738	8,48,805	4,48,274	58	3,989	96,008	16,32,714	3,868	..	362
Coorg..	281	3,500	..	..	..	..	..	..		..
North-West Frontier Province.	2,380	2,259	1,022	..	298	..	..	..	..	..
Ajmer	138	996	..	..	2	1,447	7,159	..	..	..
Baluchistan	416	2,208	3,200	60	139	..	..	..	..	..
Madras	97,710	8,58,741	9,57,633	..	1	15,851	1,11,204	83,206	..	20,352
Bombay	32,356	(a) 1,24,205	86,793	2,248	5,376	1,72,513	(a) 13,20,387	2,05,878	..	5,961
Total 1916-17 ..	6,39,633	21,78,006	19,70,641	21,929	14,520	3,15,515	33,58,537	6,46,333	188	28,494
„ 1915-16 ..	5,96,595	22,38,326	21,88,122	18,160	12,030	333,966	35,17,467	5,99,894	17	26,559
„ 1914-15 ..	6,91,839	24,75,321	26,18,384	11,746	18,409	3,07,563	32,74,365	5,54,814	1,356	24,422
„ 1913-14 ..	7,62,295	30,83,544	27,36,813	14,353	20,883	2,39,291	28,22,584	4,58,069	..	20,491
„ 1912-13 ..	6,96,074	28,75,482	15,15,205	12,185	22,998	3,47,069	38,44,768	19,21,392	..	3,364

(a) Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE NUMBER OF ANIMALS									
BY RIGHT UNDER SETTLEMENT.					DURING PLEASURE OF GOVERNMENT OR OTHERWISE THAN UNDER SETTLEMENT.				
Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
..	..	..	..	..	618	1,895	..	..	..
27,670	4,04,368	41,936	..	1,524	6,103	30,812	11,561	..	122
									212
134,237	6,44,110	1,311,532	276	1,85,342	3,740	20,504	..	3,025	2,773
149,261	6,38,323	240	..	228	14,581	95	..	..	8,647
30,866	99,834	21,000	..	..	244	764	563	..	
..	310	..	..	..	66,870	4,12,601	77,890	..	325
..	375	..	..	..	811	2,65,281	682	..	85
..	231	..	..	..	..	7,551	..	..	..
6,973	9,753	..	..	..	6,758	11,649	..	..	475
..	..	..	..	..	1,212	5,152	..	..	..
..	3,310	53,226	1	1,193	..	..	..	..	..
649	2,911	8,682	..	..	9,273	69,032	2,573	..	1
2,904	8,590	60	2	51	96,085	4,74,521	4,399	913	4,705
3,52,560	18,12,145	14,36,676	279	1,88,338	2,06,295	12,99,857	97,668	3,938	17,133
3,42,757	17,23,167	14,28,343	279	1,89,221	1,92,075	12,21,831	93,714	5,600	15,070
2,46,601	11,66,591	14,32,644	279	1,82,992	1,89,832	11,43,758	82,648	3,351	6,464
2,43,388	11,08,288	14,35,051	310	1,83,445	1,75,601	10,57,944	88,729	4,032	8,212
2,64,744	12,16,629	14,64,902	310	1,83,344	1,52,684	10,51,168	79,651	3,554	9,075

STATEMENT XII.

Area of plantations and the cost of the year's work.

Province.	Area in acres at close of the year.			
	Regular Plantations.	Taungyas.	Total.	Cost of operations during the year.
(1)	(2)	(3)	(4)	(5)
Bengal	(a) 1,957	320	2,277	1,881
United Provinces	(b) 20,719	..	20,719	37,397
Punjab	3,256	..	3,256	54,284
Burma	3,377	(c) 77,487	80,864	29,634
Bihar and Orissa	919	..	919	1,574
Assam	3,372	674	4,046	527
Central Provinces	763	(d) 6,411	7,174	1,340
Coorg	2,072	2,612	4,684	2,873
North-West Frontier Province	..	..	..	..
Ajmer	76	..	76	57
Baluchistan	46	..	46	..
Andamans	2,563	..	2,563	9,316
Madras	(e) 25,292	680	25,972	21,723
Bombay	(f) 6,869	..	6,869	13,168
Total 1916-17 ..	71,281	88,184	159,465	173,774
„ 1915-16 ..	69,496	86,031	155,527	143,177
„ 1914-15 ..	63,151	87,059	150,210	1,73,001
„ 1913-14 ..	55,755	87,830	143,585	1,84,837
„ 1912-13 ..	55,143	85,636	140,779	2,31,754

(a) 3 acres excluded during the year.
(b) 1,002 acres excluded during the year.
(c) 617 acres excluded during the year.
(d) 602 acres excluded during the year.
(e) 1,464 acres excluded during the year.
(f) 65 acres excluded during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile.							
									Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal ..	19,088,000	3,63,482	437,000	10,303	932 000	33,285	20,517,000	4,07,120	3,905	74	255	6	246	8	1,930	38
United Provinces	25,130,000*	16,58,144	932,000	12,995	108,000	3,931	26,170,000	16,75,070	4,381	289	545	8	1,714	62	3,486	223
Punjab ..	11,866,000	11,65,153	14,940,000	11,59,302	4,991,000	36,154	35,797,000	23,60,609	5,563	546	4,543	278	5,491	40	4,964	327
Burma	25,168,000	5,02,637	..	..	48,710,000	4,03,661	73,878,000	9,06,298	865	17	..	..	436	4	525	7
Bihar and Orissa	3,548,000	99,128	15,060,000	1,45,283	32,000	12	18,640,000	2,44,423	2,032	57	14,101	136	..	..	6,624	87
Assam ..	2,118,000	1,18,269	..	..	12,702,000	9,02,464	14,820,000	10,20,733	431	24	..	..	740	53	671	46
Central Provinces	33,533,000	22,62,692	..	..	..	..	33,533,000	22,62,692	1,705	115	..	..	..	..	1,705	115
Coorg.. ..	194,015	25,487	188,968	234	..	..	383,883	25,721	375	49	..	..	..	..	738	49
North-West Frontier Province.	3,001,000†	36,741	..	..	..	..	3,001,000	36.741	12,716	156	..	..	..	..	12 716	156
Ajmer ..	208,606	25,291	..	105	..	..	208,606	25,396	1,462	178	..	..	..	..	1,462	179
Baluchistan ..	47,603	43,660	..	..	22,651	34	70,254	43,694	152	139	..	..	48	'07	90	56
Andamans ..	734,637	1,436	..	..	873,018	1,814	1,607,655	3,250	8,851	17	..	..	402	'9	728	2
Madras ..	16,133,000‡	21,50,051	..	..	9,195,000‡	34,289	25,333,000	21,84,340	858	114	..	..	12,683	47	1,297	112
Bombay ..	51,587,000	12,30,479	12,43,000	..	71,000	..	52,901,000	12,60,479	4,297	105	2,574	..	..	..	4,236	101
Total 1916-17 ..	192,371,761	97,12,659	36,800,968	13,28,962	77,696,669	14,15,584	306,869,398	1,24,56,596	1,918	97	4,026	145	567	10	1,215	51
„ 1915-16..	179,458,949	88,90,881	34,511,983	12,82,726	70,245,179	14,67,130	283,216,111	1,16,80,737	1,809	90	3,759	112	501	10	1,149	47
„ 1914-15 ..	160,127,920	80,97,598	38,147,762	14,61,904	66,179,777	12,03.781	270,455,459	1,07,63,283	1,702	83	3,666	141	466	8	1.082	43
„ 1913-14..	185,988,403	82,11,087	26,629,457	13,53,532	82.025,463	12,34,286	294,643,323	1,07,98,905	1,931	85	3,174	161	582	9	1,200	44
„ 1912-13 ..	185,318,638	85,14,039	28,761,685	13,40,686	76,638,543	12,29,949	290,718,866	1,10,84,674	1,913	88	3,387	158	574	9	1,217	46

*Includes leased forests.
†Excludes lapsed or seized timber and guzara forests.
‡Reserved and unreserved lands.

STATEMENT XIV.

Forest produce removed by different agencies.

Part I.—Timber and Fuel.

Province.	Timber.					Fuel.				
	By Government.	By purchasers	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C ft.	C. ft.
Bengal	64,000	6,385,000	5,000	..	6,454,000	12,000	12,928,000	1,123,000	..	14,063,000
United Provinces	8,49,000	7,101,000	124, 000	487,000	8,561,000	804,000	6,891,000	264,000	9,659,000	17,618,000
Punjab	207,000	6,924,000	117,000	1,607,000	8,855,000	1,675,000	833,000	90,000	24,344,000	26,942,000
Burma	4,646,000	310,23,000	512,000	1,336,000	37,517,000	2,223,000	32,446,000	150,000	1,542,000	36,361,000
Bihar and Orissa	41,000	1,290,000	8,000	201,000	1,540,000	131,000	2,239,000	2,000	14,728,000	17,100,000
Assam	309,000	4,922,000	727,000	..	5,958,000	85,000	3,617,000	5,329,000	9,000	9,040,000
Central Provinces	760,000	7,043,000	196,000	66,000	8,065,000	899,000	22,247,000	1,600 ,000	722,000	25,468,000
Coorg	29,545	169,958	500	..	200,003	56,710	127,170	..	..	183,880
North-West Frontier Province ..	32,000	1,644,000	13,000	3,000	1,692,000	110,000	441,000	445,000	480,000	1,476,000
Ajmer	15	676	..	1,753	2,444	21,502	181,190	3,470	..	206,162
Baluchistan	193	3,692	6,278	..	10,163	32,128	27,867	96	..	60,091
Andamans	718,000	49,000	23,000	45,000*	835,000	503,000	10,000	186,000	73,000*	772,000
Madras	543,000	3,495,000	176,000	82,000	4,286,000	1,015,000	19,444,000	7,000	581,000	21,047,000
Bombay	1,228,000	4,727,000	73,000	76,000	6,104,000	4,815,000	32,768,000	30,000	9,184,000	46,797,000
Total 1916-17	9,426,753	74,767,326	1,980,778	3,904,753	90,079,610	12,382,340	134,200,227	9,229,566	61,322,000	217,134,133
„ 1915-16	8,666,189	66,098,444	2,065,791	3,473,887	80,304,311	12,001,836	124,187,363	10,850,372	59,433,459	206,473,030
„ 1914-15	7,985,592	64,265,882	2,679,787	6,364,563	81,295,824	10,669,896	116,279,082	8,863,291	53,577,265	189,689,534
„ 1913-14	7,655,518	81,809,626	4,290,819	3,460,207	97,225,170	13,632,994	124,457,870	18,894,872	4 0432,417	197,418,153
„ 1912-13	7,677,116	8[illegible],09,172	3,157,166	3,823,795	94,960,249	15,255,136	122,846,567	9,462,190	48,194,724	195,758,617

* By district officers.

STATEMENT XIV—*contd.*

Forest produce removed by different agencies—contd.

Part II.—Value of minor forest produce.

Province.	Bamboos.					Grazing and Fodder Grass.					Other Minor Produce.				
	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	103	89,986	62	..	90,151	..	36,878	20,400	..	57,278	14,530	232,600	12,561	..	2,59,691
United Provinces ..	543	2,22,653	23	5,898	2,29,117	508	1,56,335	12,826	209,844	379,513	7,41,260	281,834	5,023	38,323	10,66,440
Punjab	2,615	17,404	32	279	20,330	1	1,91,577	38,291	20,06,804	22,36,673	48,282	10,336	101	44,977	1,03,696
Burma	503	2,46,577	97	14,418	261,595	..	11,333	63,573	2,50,965	3,25,871	3,930	242,613	259	71,970	3,18,772
Bihar and Orissa ..	6,793	23,373	126	21,928	52,220	..	8,407	696	82,672	91,775	1,300	73,308	24	25,796	1,00,428
Assam	40	19,325	11,489	..	30,854	..	2,27,098	3,22,019	127	5,49,244	5,692	2,10,451	2,24,800	..	4,40,943
Central Provinces ..	4,150	2,76,199	5,069	3,931	2,89,349	5,575	15,04,094	1,55,345	1,328	16,66,342	7,804	2,81,940	16,172	1,085	3,07,001
Coorg	4	(a) 1,792	..	..	1,796	..	1,158	..	..	1,158	127	22,640	..	..	22,767
North-West Frontier Province.	..	..	..	..	..	..	11,081	17,778	7,150	36,009	265	467	..	..	732
Ajmer	..	381	..	..	381	181	462	1,105	21,840	23,588	322	1,000	..	..	1,322
Baluchistan ..	..	..	..	..	..	..	1,510	25	41,470	43,005	355	141	193	..	689
Andamans ..	78	41	214	215	548	..	..	..	..	..	289	263	2,180	154	2,886
Madras	8,270	3,31,856	2,358	439	3,42,923	..	740,327	8,284	2,546	751,157	32,768	10,31,511	1,359	24,622	10,90,260
Bombay	11,761	1,09,919	906	11,695	1,34,281	294	4,91,853	5,387	3,97,537	8,95,071	18,360	1,70,648	3,338	38,781	2,31,127
Total 1916-17	34,860	13,39,506	20,376	58,803	14,53,545	6,559	33,82,113	6,45,729	30,22,283	70,56,684	8,75,284	25,59,752	2,66,010	2,45,708	39,46,754
„ 1915-16	27,668	1,180,035	10,822	52,962	12,71,187	78,442	32,45,767	5,96,750	30,01,400	69,22,359	6,13,596	23,04,610	2,50,750	2,58,387	34,87,343
„ 1914-15	34,309	10,22 060	12,049	49,187	11,17,605	28,254	32,54,843	5,48,908	27,97,531	66,29,516	5,85,163	19,52,132	2,57,547	2,24,457	30,19,299
„ 1913-14	47,367	11,70,509	29,401	58,276	13,05,553	1,62,578	29,40,611	6,07,302	26,70,618	63,81,109	5,08,868	21,04,757	2,80,140	2,17,914	31,11,679
„ 1912-13	82,514	10,38,771	25,199	50,079	11,96,563	3,57,249	31,15,811	3,16,915	27,57,262	65,47,237	3,70,583	24,83,720	2,66,250	2,11,321	33,40,874

(a) Includes cost of 47,050 reeds.

STATEMENT XV.

Export of forest produce.

ARTICLES OF FOREST PRODUCE.	QUANTITY IN TONS OF 20 CWT. IN THE CASE OF TEAK AND OTHER TIMBERS, CUBIC TONS.		VALUATION AT PORT OF SHIPMENT IN 1916-17.	
	Average of 5 years 1911-12 to 1915-16.	In 1916-17.	Total.	Per ton.
(1)	(2)	(3)	(4)	(5)
			Rs.	Rs.
Caoutchouc, raw	1,268	3,367	1,58,16,288	4,698
Lac .. Button	(a)	(a)	(a)	(a)
Lac .. Shell				
Lac .. Stick, seed and other kinds ..				
Cutch and gambier	4,162	3,014	10,63,136	353
Myrabolams	64,247	54,060	61,96,539	115
Cardamums	(a)	(a)	(a)	(a)
Sandal, Ebony and other ornamental woods ..	(b)	(b)	18,94,784	..
Teak	47,512	25,437	48,00,087	189
Other timbers	5,993	2,787	2,13,903	77
Total in 1916-17 ..	..	..	2,99,84,737	..
„ 1915-16 ..	..		4,79,30,443	
„ 1914-15 ..			4,17,49,407	
„ 1913-14 ..			4,54,25,118	
„ 1912-13 ..			4,67,80,613	

(a) The detailed figures of lac and cardamums are not published in the Seaborne trade accounts of British India, having been temporarily discontinued under orders of Commerce and Industry Department.

(b) Quantity (whether by weight or measurement) is not recorded.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos	Grass and grazing.	Other minor produce.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	1,531	21,579	29,140	32,009	12,561	96,820
United Provinces	82,971	97,799	5,921	2,34,445	44,803	4,65,939
Punjab	43,625	9,61,761	311	20,46,681	45,078	30,97,456
Burma	1,69,878	10,737	17,223	3,14,538	69,521	5,81,897
Bihar and Orissa	16,889	1,68,515	22,055	84,365	25,830	3,17,654
Assam	52,383	61,808	11,489	3,22,146	2,24,800	6,72,626
Central Provinces	15,057	44,241	20,236	7,93,378	32,054	9,04,966
Coorg	..	..	..	1,941	..	1,941
North-West Frontier Province	1,950	21,405	..	24,828	100	48,283
Ajmer	..	..	..	22,945	..	22,945
Baluchistan	2,506	..	..	41,470	81	44,057
Andamans	2,029	6,464	328	..	2,385	11,206
Madras	57,605	6,128	2,797	10,939	25,981	1,03,450
Bombay	3,17,261	9,58,527	27,604	7,02,217	2,22,115	22,27,724
Total 1916-17 ..	7,63,685	23,58,964	1,37,104	46,31,902	7,05,309	85,96,964
„ 1915-16 ..	7,47,553	23,35,459	1,08,415	45,92,908	7,32,981	85,17,316
„ 1914-15 ..	9,78,430	22,71,655	1,02,095	43,67,560	6,85,948	84,05,688
„ 1913-14 ..	9,13,245	19,27,965	1,13,992	37,72,590	6,77,202	74,04,994
„ 1912-13 ..	6,03,992	17,61,889	1,08,600	37,63,678	6,62,760	69,00,919

STATEMENT XVII.

Details of revenue and expenditure for the Forest year 1916-17.

					Rs.
Gross Receipts ..	(*a*) Wood				2,94,12,148
	(*b*) Minor forest produce				33,37,618
	(*c*) Forest stamps and commutation fees for forest produce				1,10,821
	(*d*) Grazing				33,63,405
	(*e*) Revenue from forests not managed by Government				2,78,321
	(*f*) Miscellaneous				19,60,124
				Total Revenue ..	3,84,62,437
Expenditure ..	A. Recurring ..	(*a*) Administration.	(*i*) Superior Staff		36,85,665
			(*ii*) Subordinate Staff (including Rangers, Foresters and Guards).		36,11,739
			(*iii*) Office Establishments (including contingencies).		19,89,210
		(*b*) Working	(1) Extraction		49,61,041
			(2) Roads and Buildings		12,63,390
			(3) Fire protection		5,01,817
			(4) Cultural operations		7,20,578
			(5) Live-stock, stores and plant ..		5,52,608
			(6) Working Plans		41,785
			(7) Rent for leased forests		4,19,742
			(8) Miscellaneous		2,49,818
		(*c*) Expenditure on realization of revenue from forests not managed by Government.			8,722
		(*d*) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute).*			3,01,950
				Total	1,83,08,065
	B. Extraordinary	(*e*) Forest Settlement			1,58,995
		(*f*) Forest Survey			88,380
		(*g*) Forest Demarcation			1,44,566
				Total	3,91,941
				GRAND TOTAL OF EXPENDITURE	1,87,00,006
				Net Revenue ..	1,97,62,431

*Expenditure under this head in provinces has been included in (*a*) Administration.

STATE

Summary of revenue and expenditure of the

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab	Burma.	Bihar and Orissa.	Assam.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
REVENUE.							
I.—Timber and other produce removed from the forests by Government agency.	12,627	15,556	12,70,005	6,74,643	27,31,637	8,613	1,42,920
II.—Timber and other produce removed from the forests by consumers or purchasers.	11,919	12,53,903	36,27,724	8,02,418	90,25,471	5,03,714	8,64,459
III.—Drift and waif wood and confiscated forest produce.	..	10,906	7,356	34,556	2,25, 960	....	22,507
IV.—Revenue from forests not managed by Government.	..	..	21,221	2,598	1,64,691	....	40,906
V.—Miscellaneous	..	58,414	1,14,626	1,73,586	2,31,772	16,754	77,829
Total Revenue ..	(a)24,546	13,38,779	50,40,932	16,87,801	1,23,79,531	5,29,081	11,48,621
EXPENDITURE.							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forest by Government agency.	4,787	8,286	10,01,866	2,47,149	13,22,756	4,035	79,283
II.—Timber and other produce removed from the for sts by consumers or purchasers.	..	1,10,200	56,758	5,839	1,67,341	13, 685	31,008
III.—Drift and waif wood and confiscated for st produce.	..	1,307	1,467	9,398	91,195	1	942
IV.—Revenue fro. forests not managed by Government.	..	..	5,400	..	291	..	714
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	1,47,238	53,219	..	72,458	24,938
VI.—Live-stock, stores, tools and plant	..	10,678	99,641	19,518	1,60,454	3,855	30,021
VII.—Communications and buildings ..	..	64,547	1,76,084	43,626	2,23,041	70,686	67,623
VIII.— Demarcation, improvement and extension of forests.	551	46,658	2,79,611	93,949	3,15,968	31,879	18,985
IX.—Miscellaneous	..	8,316	31,467	6,515	41,428	2,639	11,595
Total A.—Conservancy and Works ..	(b)5,338	2,49,992	17,99,532	4,79,213	23,22,474	1,99,238	2,65,109
B.—Establishments.							
I.—Salaries	97,742	2,99,380	7,25,723	3,50,647	21,02,507	2,11,749	3,30,273
II.—Travelling Allowances	..	56,007	1,16,581	68,862	3,60,293	28,191	58,096
III.—Contingencies ..	168	14,270	94,079	35,940	1,51,314	8,794	22,555
Total B.—Establishments . ..	(c)97,910	3,69,657	9,36,383	4,55,449	26,14,114	2,48,734	4,10,924
Grand Total of Expenditure ..	1,03,248	6,19,649	27,35,915	9,34,662	49,36,588	4,47,972	6,76,033
Surplus ..	..	7,19,130	23,05,017	7,53,139	74,42,943	81,109	4,72,588
Deficit ..	78,702	..	..	..	..	..	..
Proportion of surplus to gross revenue ..	..	54	46	45	60	15	41
Net revenue per square mile of forest area under control of Forest Department.	..	68	307	104	53	29	21

(a) Includes revenue derived from Indor and Bangalore.
(b) Includes expenditure on account of Bangalore and Bangalore.
(c) Includes expenditure on account of Indore.

MENT XVIII.

Forest Department in India for the financial year 1916-17.

Central Provinces.	Coorg.	North-West Frontier Province.	Ajmer.	Baluchistan.	Andamans.	Forest College and Research Institute.	Forest Surveys (Imperial).	Madras.	Bombay.	TOTAL.
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
95,460	4,21,738	23,988	2,869	8,554	6,39,695	..	..	8,30,982	18,66,910	87,46,197
30,66,725	51,673	2,01,487	14,980	3,505	8,097	..	..	31,93,280	34,64,742	2,60,94,097
1,548	..	703	61	..	..	..	..	15,651	4,238	3,23,486
3,129	..	3,053	..	5,929	..	..	..	..	9,076	2,50,603
2,04,716	13,903	11,754	3,362	289	1,919	8,199	..	5,56,213	1,74,211	16,47,547
33,71,578	4,87,314	2,40,985	21,272	18,277	6,49,711	8,199	..	45,96,126	55,19,177	3,70,61,930
20,941	22,123	18,830	2,262	4,294	2,49,763	..	..	1,46,382	7,58,007	38,90,764
1,44,762	..	860	460	..	216	..	..	1,11,693	47,691	6,90,513
8	..	203	2	..	..	..	..	2,029	153	1,06,705
..	..	..	..	162	..	..	..	..	9	6,576
..	..	27,866	..	..	..	..	..	20,770	36,469	3,82,958
26,951	12,254	803	792	49	84,442	7,044	..	1,13,111	12,937	5,82,550
1,58,198	22,325	5,881	4,173	138	4,080	12,579	..	2,71,399	1,37,148	12,62,428
1,78,802	28,708	2,487	1,437	13	17,060	..	47,407	4,69,205	1,33,482	16,66,202
24,093	2,165	1,830	452	203	2,763	26,734	..	18,793	51,865	2,30,858
5,53,755	87,575	58,760	9,578	4,859	3,59,224	46,357	47,407	11,53,382	11,77,761	88,19,554
9,96,581	58,939	47,050	14,570	19,770	59,704	2,11,406	..	12,78,729	11,82,494	79,87,264
1,26,151	11,337	7,629	1,389	1,976	8,285	25,301	..	2,67,303	1,49,348	12,86,749
92,288	2,641	4,631	1,097	324	1,439	22,434	..	1,43,264	55,078	6,50,316
12,15,020	72,917	59,310	17,056	22,070	69,428	2,59,141	..	16,89,296	13,86,920	99,24,329
17,68,775	1,60,492	1,18,070	26,634	26,929	4,28,652	3,05,498	47,407	28,42,678	25,64,681	1,87,43,883
16,02,803	3,26,822	1,22,915	..	..	2,21,059	..	..	17,53,448	29,54,496	1,83,18,047
..	..	..	5,362	8,652	..	2,97,299	47,407	..	..	..
48	67	51	..	..	34	..	..	38	53	49
81	629	521	..	..	100	..	..	90	237	74

STATE

Revenue, expenditure and surplus of the Forest Department

PROVINCE.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-00.	1900-01.	1901-02.	1902-03.
											(I) REVENUE.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial*	3,240	2,750	4,980	2,090	41,190	19,130	17,340	6,090	2,463	3,484	3,659
Bengal†	7,44,830	8,11,610	7,55,070	9,18,710	13,70,850	11,83,280	9,72,310	11,38,910	12,33,339	12,92,237	12,56,247
United Provinces ..	16,52,540	17,09,860	16,58,280	16,01,740	14,14,820	13,56,670	15,68,040	16,14,740	15,65,463	17,15,508	20,25,324
Punjab	8,12,730	9,13,300	10,32,430	10,14,500	11,07,720	10,68,410	14,74,430	14,00,770	13,50,842	14,47,558	15,86,408
Burma	56,60,000	57,85,110	54,36,780	56,35,[illegible]	63,78,950	72,15,260	83,50,890	78,12,050	80,54,444	58,73,938	67,39,053
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	3,82,840	4,88,090	4,30,090	4,25,040	4,35,440	3,84,820	3,93,180	5,68,100	5,49,521	5,12,963	5,80,200
Central Provinces ..	16,61,870	16,17,280	14,82,030	14,91,210	12,91,140	11,80,400	14,34,940	12,97,490	12,65,614	15,79,116	16,84,428
Coorg	1,80,680	1,73,790	1,53,050	1,35,250	93,000	1,30,910	1,55,070	1,62,410	1,37,596	1,70,242	1,90,730
North-West Frontier Provinces.	..	..	..	..	..	..	..	..	..	13,012	1,01,123
Ajmer	14,890	14,620	12,840	15,640	12,370	15,540	14,420	10,270	10,646	6,865	9,736
Baluchistan	19,010	20,730	16,300	14,930	15,460	15,040	14,920	17,060	16,956	14,712	19,336
Andamans	3,60,490	4,41,790	1,14,530	1,32,120	3,62,370	4,33,710	2,29,460	2,60,000	2,77,886	2,66,903	3,26,035
Imperial Forest College and Research Institute.	1,980	1,990	2,790	4,310	2,850	2,850	2,360	3,210	3,697	3,545	3,252
Forest Surveys (Imperial) ..	520	240	80	510	400	220	290	420	327	473	3,034
Total ..	1,14,87,850	1,15,71,490	1,11,44,820	1,14,52,110	1,25,20,470	1,30,42,340	1,46,32,859	1,42,92,720	1,44,68,794	1,20,00,556	1,45,28,565
Madras	16,77,210	16,17,190	18,04,030	21,10,570	23,03,330	21,36,490	21,10,520	23,02,290	23,40,170	25,43,430	26,13,819
Bombay	[illegible]	37,94,830	37,50,030	35,36,670	30,32,710	25,16,660	22,05,150	24,15,200	29,61,529	23,79,729	23,29,156
GRAND TOTAL ..	1,[illegible]	1,70,83,510	1,67,88,880	1,70,99,350	1,78,56,510	1,77,95,490	1,90,38,529	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540
											(II) EXPENDITURE.
Imperial*	1,07,270	80,840	84,950	80,410	78,960	84,300	85,460	96,550	83,578	79,539	85,017
Bengal†	3,81,610	4,04,040	3,97,390	4,06,070	6,90,040	6,53,440	4,86,320	5,45,210	5,70,806	6,57,131	6,38,014
United Provinces ..	9,[illegible]	9,03,020	9,36,310	9,42,860	9,06,340	9,17,850	9,72,030	9,42,280	9,63,439	10,08,739	10,13,998
Punjab	6,[illegible]	6,[illegible]	7,22,120	6,78,420	7,23,300	7,71,940	8,55,340	12,11,460	8,87,343	9,38,335	9,60,095
Burma	18,[illegible]	13,62,[illegible]	19,17,090	19,33,600	21,28,820	21,96,610	24,26,190	24,47,440	26,54,717	26,46,457	28,90,263
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	2,64,070	2,68,220	2,72,010	2,46,140	2,82,010	2,88,830	3,05,360	3,57,140	3,47,972	3,29,112	3,27,498
Central Provinces ..	10,80,630	11,86,440	12,27,700	11,97,850	11,92,860	11,65,490	11,09,400	12,75,820	11,65,866	12,00,904	12,57,288
Coorg	73,030	80,890	86,140	85,840	71,630	87,020	80,100	74,220	70,905	82,333	89,437
North-West Frontier Provinces.	..	..	..	..	..	..	..	..	..	19,510	54,086
Ajmer	15,000	15,000	14,900	15,730	22,010	14,670	16,300	15,350	16,782	15,927	16,377
Baluchistan	55,620	63,730	40,910	41,770	29,770	27,330	27,760	28,680	29,254	24,480	23,240
Andamans	2,31,210	2,44,[illegible]50	1,22,780	1,02,020	3,16,600	2,47,340	1,38,400	1,40,940	1,40,137	2,04,667	2,81,702
Imperial Forest College and Research Institute.	50,490	65,[illegible]30	65,980	67,950	67,340	60,920	63,370	73,550	71,238	76,290	66,338
Forest Surveys (Imperial) ..	22,160	27,900	29,840	29,950	31,070	33,950	33,970	33,980	33,991	33,730	33,985
Total	56,70,870	56,05,[illegible]	59,19,020	59,28,610	65,41,090	65,49,690	66,00,000	72,42,720	70,36,028	73,17,154	77,37,338
Madras	13,30,310	13,62,740	13,86,350	14,45,610	15,34,360	15,72,850	15,94,670	16,53,530	17,15,431	17,09,554	18,35,552
Bombay	19,04,070	[illegible],71,940	20,67,020	19,58,390	19,69,160	20,73,190	18,39,250	21,28,430	24,08,581	17,19,680	16,76,441
GRAND TOTAL ..	89,03,240	93,40,700	93,73,290	93,32,610	1,00,45,150	1,01,95,730	1,00,33,920	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331
											(III) SURPLUS.
Imperial*	1,02,030	78,160	—79,970	—77,720	—74,860	—65,170	—67,920	—90,460	—81,115	—76,055	—81,358
Bengal†	3,63,270	3,97,570	3,89,280	4,52,640	6,80,810	5,35,840	4,85,990	5,93,700	6,62,533	6,35,106	6,18,233
United Provinces ..	7,24,000	7,47,840	7,21,940	6,58,480	5,38,480	4,68,820	5,96,090	6,72,360	6,02,024	7,06,769	10,11,326
Punjab	1,76,360	2,76,870	3,10,310	3,36,080	3,84,420	2,96,530	6,19,010	1,89,310	4,63,499	5,09,223	6,26,313
Burma	38,55,000	39,22,600	35,18,790	37,62,230	42,50,130	50,18,650	59,24,700	53,64,610	53,99,727	32,27,481	38,48,790
Bihar and Orissa ..	..	..	..	..	..	..	..	..	..	..	..
Assam‡	1,18,760	2,20,280	1,63,080	1,38,890	1,54,430	95,990	92,820	210,960	2,01,549	1,83,851	2,52,701
Central Provinces ..	5,81,240	4,30,840	2,54,330	2,93,430	98,280	14,910	3,25,540	21,670	99,748	3,78,212	4,27,140
Coorg	1,07,650	86,[illegible]00	66,910	49,410	21,370	43,890	47,970	88,190	66,691	87,909	1,01,293
North-West Frontier Provinces.	..	..	..	..	..	..	..	..	..	—6,498	47,038
Ajmer	—110	—1,280	—2,060	—90	—9,640	870	—1,880	—5,080	—6,136	—9,062	—6,641
Baluchistan	—36,590	43[illegible]	—24,610	—26,840	—14,310	—12,290	—12,840	—11,620	—12,298	—9,768	—3,904
Andamans	1,29,280	1,97,240	—8,250	—30,100	45,770	1,86,370	91,060	1,19,660	1,37,749	62,236	44,333
Imperial Forest College and Research Institute.	—48,420	—63,540	—63,190	—63,640	—64,530	—58,030	—61,010	—70,340	—67,541	—72,745	—63,086
Forest Surveys (Imperial) ..	—21,640	27,6[illegible]	23,[illegible]	—29,440	31,570	—33,730	—33,680	—33,560	—33,664	—33,257	—30,951
Total ..	32,26,710	60,65,560	52,25,[illegible]	57,23,530	59,78,780	64,92,650	80,32,850	70,49,400	74,32,766	55,83,402	67,91,227
Madras	2,46,820	5,84,410	5,07,630	6,64,960	7,69,030	5,63,640	5,15,850	6,48,760	6,24,739	8,33,876	7,78,267
Bombay	13,64,580	17,22,410	16,82,110	15,78,280	10,63,550	5,43,470	4,54,900	2,86,770	5,52,948	6,60,040	6,52,715
GRAND TOTAL ..	74,38,110	83,72,320	74,15,590	77,66,770	78,11,360	75,99,760	90,04,600	79,84,930	86,10,453	70,77,327	‡82,22,209

* Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, Office Establishment, and undistributable and petty local items and revenues and
†Includes figures up to 1910-11 for districts subsequently transferred to Bihar and Orissa.
‡ Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred to Bengal.

MENT XIX.

throughout India during the 25 financial years from 1892-93.

1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	PROVINCE.
ENUE.														
Rs. 7,455	Rs. 3,768	Rs. 7,255	Rs. ..	Rs. 7,666	Rs. 8,189	Rs. 10,632	Rs. 8,662	Rs 10,680	Rs. 12,837	Rs. 11,471	Rs. 12,047	Rs. 23,457	Rs. 24,546	Imperial.*
10,65,523	11,67,472	11,18,542	10,65,859	11,97,650	11,84,845	10,80,640	11,67,444	11,22,442	16,00,601	16,16,111	13,04,496	11,45,610	13,38,779	Bengal.†
22,80,446	23,97,318	24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	23,78,439	30,16,160	35,43,963	37,12,487	31,35,235	37,38,831	50,40,932	United Provinces.
17,17,797	18,74,443	17,81,653	16,05,284	14,57,449	12,88,792	10,32,633	12,17,988	13,10,077	12,39,033	13,54,943	14,38,005	17,27,283	16,87,801	Punjab.
82,68,535	89,59,756	1,03,29,869	98,12,519	86,63,989	19,92,032	93,58,077	1,00,70,117	99,67,594	1,09,22,393	1,14,25,430	97,07,694	96,99,217	1,23,79,531	Burma.
..	..	..	..	..	..	..	..	4,07,213	4,38,958	4,91,735	5,49,779	5,17,727	5,29,081	Bihar and Orissa.
6,75,732	8,15,677	11,06,096	13,20,592	14,30,447	14,46,368	15,54,732	18,90,635	11,46,320	11 42,091	10,97,969	8,32,877	10,55,052	11,48,621	Assam.‡
19,98,032	20,13,459	24,49,131	24,01,159	22,90,128	20,78,162	20,78,340	21,14,226	25,49,854	31,71,815	31,86,453	32,72,529	32,78,262	33,71,578	Central Provinces and Berar.
2,24,031	1,93,087	2,45,419	2,35,909	2,74,756	2,24,330	2,13,129	2,76,055	2,95,170	2,81,652	3,29,227	1,99,237	4,49,155	4,87,314	Coorg.
1,01,833	90,991	1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	1,58,171	2,37,183	2,66,741	2,38,013	1,86,815	2,40,985	North-West Frontier Province.
13,884	17,297	15,002	18,335	29,864	27,615	23,990	33,846	26,361	36,596	33,897	31,170	23,445	21,272	Ajmer.
18,363	22,555	21,481	21,195	24,829	23,305	18,729	23,212	20,117	20,159	19,988	19,058	21,633	18,277	Baluchistan.
4,32,381	6,20,796	5,82,511	6,07,027	2,19,822	2,02,018	2,50,477	4,16,773	5,22,160	4,49,925	4,45,811	3,39,248	4,34,784	6,49,711	Andamans.
3,038	3,557	3,080	4,579	6,137	4,680	4,909	4,080	5,550	7,611	5,806	8,617	6,995	8,199	Imperial Forest College and Research Institute.
431	..	..	..	..	..	..	..	..	..	..	..	..	..	Forest Surveys (Imperial).
1,68,07,481	1,81,80,176	2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,89,757	1,98,06,819	2,05,57,869	2,31,04,817	2,39,98,069	2,10,88,005	2,23,08,266	2,69,46,627	Total.
26,57,727	28,29,216	29,67,604	32,90,669	38,93,830	38,90,919	41,78,381	38,80,411	41,68,921	41,12,473	42,00,320	39,41,537	41,06,838	45,96,126	Madras.
27,51,539	30,20,558	38,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	43,30,569	49,92,519	51,03,156	46,80,242	47,01,263	55,19,177	Bombay.
2,22,16,747	2,40,29,950	2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	2,90,57,359	3,22,09,809	3,33,01,545	2,97,09,784	3,11,16,367	3,70,61,980	GRAND TOTAL.
PENDITURE.														
89,345	83,058	83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	94,714	1,04,162	99,206	99,478	1,09,502	1,03,248	Imperial.*
7,03,508	6,88,589	5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	7,06,374	6,60,794	6,40,157	6,70,935	5,93,635	6,19,649	Bengal.†
10,81,438	13,91,583	14,05,182	13,06,651	11,94,013	12,22,436	12,09,308	12,37,938	13,03,673	16,29,264	18,96,014	23,17,740	25,66,307	27,35,915	United Provinces.
11,56,415	10,12,354	12,65,664	11,44,403	11,76,696	8,51,627	6,67,752	7,40,542	7,65,146	7,99,176	9,19,177	8,89,302	9,23,878	9,34,662	Punjab.
33,52,404	34,46,924	39,38,063	36,59,753	35,51,532	37,17,247	36,83,618	38,42,799	41,31,162	41,38,584	42,74,901	46,80,447	48,86,241	49,36,588	Burma.
..	..	..	..	..	..	..	..	3,00,916	3,75,894	3 55,048	3,84,371	3,61,550	4,47,972	Bihar and Orissa.
4,25,484	5,03,656	5,93,910	7,07,860	8,00,373	8,01,349	10,12,541	10,87,340	8,41,013	8,08,911	9 10,240	8,98,330	7,55,214	6,76,033	Assam.†
12,80,966	13,20,615	13,07,153	13,42,898	15,83,407	17 53,307	15,86,852	15,89,533	18,38,379	19,46,735	19,53,129	19,36,569	17,34,336	17,68,775	Central Provinces and Berar.
92,191	83,820	95,748	1,02,855	1,04,819	99,595	1,07,822	1,07,679	1,21,174	1,61,544	1,78,514	1,75,833	1,76,633	1,60,492	Coorg.
60,603	74,958	95,258	93,650	88,400	81,413	77,391	72,492	89,436	122,173	1,31,023	1,25 539	1,04,795	1,18,070	North-West Frontier Province.
16,680	15,641	17,131	16,715	18,188	19,916	19,272	19,018	22,343	20,714	23,595	21,733	25,152	26,634	Ajmer.
21,697	24,672	25,743	26,322	31,258	36,586	26,549	26,387	28,947	28,527	25,310	26,000	27,995	26,929	Baluchistan.
2,66,121	3,42,431	3,35,985	2,95,136	2,29,267	1,80,941	1,94,159	2,26,963	2,61,732	2,55,141	2,74,676	2,58,056	4,30,832	4,28,652	Andamans.
59,339	61,424	80,669	1,37,486	1,58,038	1,83,191	1,96,174	2,19,183	2,63,441	2,68,445	2,98,338	3,31,091	2,78,518	3,05,498	Imperial Forest College and Research Institute.
33,035	28,229	30,044	30,389	27,060	39,128	41,062	41,140	38,798	35,809	37,743	42,353	48,663	47,407	Forest Surveys (Imperial).
86,40,126	90,77,954	98,65,826	95,92,956	97,76,649	97,64,900	95,17,931	99,47,805	1,08,67,248	1,13,64,873	1,20,17,761	1,28,57,8.0	1,30,23,251	1,33,36,524	Total.
17,50,930	19,86,098	22,66,602	24,80,660	27,80,857	29,17,261	33,39,635	32,25,801	34,14,882	31,50,482	29,35,817	28,60,685	29,27,318	28,42,678	Madras.
17,75,937	19,03,804	21,26,093	19,90,183	19,55,427	20,43,873	20,63,088	20,70,417	26,64,436	23,94,455	25,89,877	24,87,925	26,42,038	25,64,681	Bombay.
1,21,66,993	1,29,67,856	1,42,58,521	1,40,63,799	1,45,12,933	1,47,26,034	1,51,20,654	1,52,44,023	1,69,46,566	1,72,07,810	1,75,43,455	1,82,06,450	1,85,92,607	1,87,43,883	GRAND TOTAL.
PLUS.														
—81,800	—79,290	—76,512	—95,472	—92,538	—95,994	—93,700	—83,944	—84,034	—91,325	—87,825	—87,431	—86,045	—78,702	Imperial. *
3,62,015	4,78,883	5,25 033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,159	4,16,068	19,39,807	9,75,954	6,33,561	5,51,975	7,19,130	Bengal.†
11,99,008	10,05,735	10,28,246	11,96,013	12,15,782	9,52,970	10,91,586	11,40,501	16,52,487	19,14,699	18,16,473	8,17,495	11,72,524	23,05,017	United Provinces.
5,61,382	8,62,089	5,17,989	4,60,881	2,80,753	4,37,165	3,64,881	4,77,446	5,44,931	4,39,857	4,35,766	5,48,703	8,03,405	7,53,139	Punjab.
49,16,131	55,12,332	63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	58,36,432	67,83,809	71,50,529	50,27,247	48,12,976	74,42,943	Burma.
..	..	..	..	..	..	..	..	1,06,297	63,064	1,36,087	1,65,408	1,56,177	81,109	Bihar and Orissa.
2,50,248	3,12,021	5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	3,05,307	3,33,180	1,87,729	—65,462	2,99,838	4,72,588	Assam ‡
7,17,066	6,92,844	11,41,978	10,58,281	7,06,721	3,24,855	4,91,488	5,24,693	7,11,475	12,25,080	12,33,324	13,35,960	15,43,926	16,02,803	Central Provinces and Berar.
1,31,840	1,09,267	1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	1,68,376	1,73,996	1,20,108	1,50,713	23,404	2,72,522	3,26,822	Coorg.
41,230	16,033	33,271	89,564	1,50,090	41,369	95,914	1,32,850	68,735	1,15,010	1,35,718	1,12,420	82,020	1,22,915	North-West Frontier Province.
—2,796	1,656	—2,129	1,620	11,676	7,699	4,718	13,928	4,018	6,882	10,302	9,437	—1,707	— 5,362	Ajmer.
—3,334	—2,117	—4,262	—5,127	—6,429	—13,281	—7,820	—3,175	—8,830	—8,368	—5,322	—6,942	—6,362	—8,652	Baluchistan.
1,66,260	2,78,365	2,46,526	3,11,891	62,555	21,077	65,318	1,89,810	2,60,428	1,94,784	1,71,135	81,192	3,952	2,21,059	Andamans.
—56,301	—57,867	—77,589	—1,32,907	—1,51,901	—1,78,511	—1,91,265	—2,15,103	—2,57,891	—2,60,834	—2,92,532	—3,22,474	—2,71,523	—2,97,299	Imperial Forest College and Research Institute.
—33,504	—28,229	—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	—38,798	—35,809	—37,743	—42,353	—48,663	—47,407	Forest Surveys (Imperial).
81,67,355	91,02,222	1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,826	98,59,014	96,90,621	1,17,39,944	1,19,80,308	82,30,165	92,85,015	1,36,10,103	Total.
9,06,797	8,43,118	7,01,002	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	7,54,039	9,61,991	12,64,503	10,80,852	11,79,520	17,53,448	Madras.
9,75,602	11,16,954	13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47,807	16,66,133	23,00,064	25,13,279	21,92,317	20,59,225	29,54,496	Bombay.
1,00,49,754	1,10,62,094	1,24,16,072	1,24,27,687	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	1,21,10,793	1,50,01,999	1,57,58,090	1,15,03,334	1,25,23,760	1,83,18,047	GRAND TOTAL.

charges, on account of Indore and Bangalore. Excludes Home charges.

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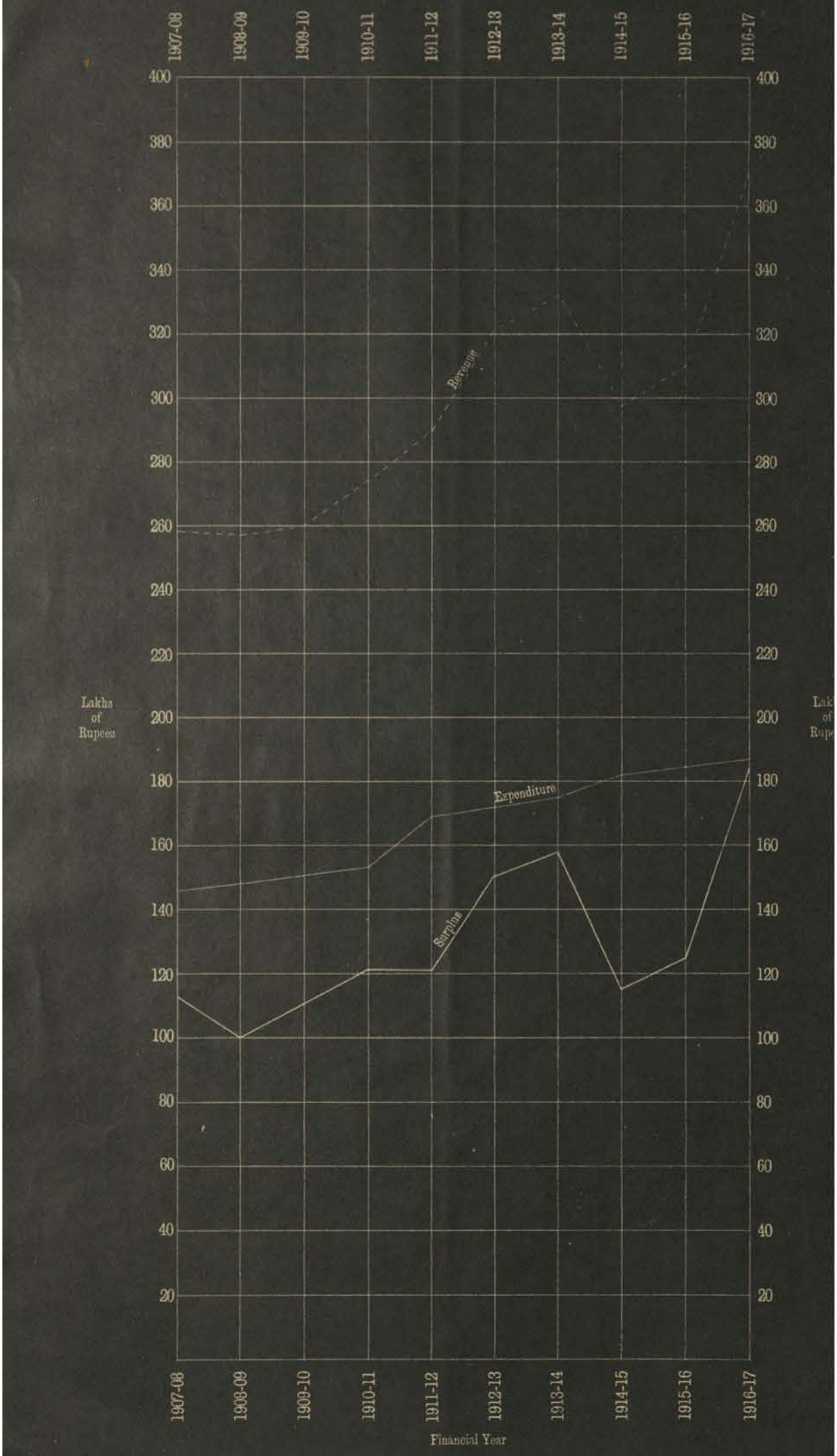
DIAGRAM SHOWING

ANNUAL FOREST REVENUE, EXPENDITURE & SURPLUS.

For the 10 years 1907-08 to 1916-17.



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APPENDIX.

Diagram showing annual forest revenue, expenditure and surplus for the 10 years 1908-09 to 1917-18.

STATEMENT I.

Area of forests under the control of the Forest Department.

Province. Name.	Area in square miles.	Forest area in square miles. Reserved.	Protected.	Unclassed State.	Total.	Percentage of forests to whole area of Province.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Bengal	78,836	(a) 4,889	(b) 1,711	4,030	10,630	13·5	(a) Excludes 18 square miles of reserved forests not under the management of the Forest Department.
United Provinces ..	106,725	(c) 6,113	1,321	61	7,495	7·0	(b) Excludes 54 square miles not under the control of the Forest Department.
Punjab	96,650	(d) 2,112	(e) 4,169	(f) 793	7,074	7·3	(c) Includes 156 square miles of leased forests.
Burma	*2,26,904	29,116	..	1,16,731	1,45,847	64·3	(d) Includes 363 square miles of leased forests, but excludes 111 square miles of reserved forests not under the control of the Forest Department.
Bihar and Orissa ..	82,505	1,747	(g) 1,067	..	2,814	3·4	
Assam	48,915	5,381	..	16,650	22,031	45·0	(e) Excludes 70 square miles not under the control of the Forest Department.
Central Provinces (including Berar).	99,948	(h) 19,649	..	..	19,649	19·7	(f) Excludes 5 square miles not under the control of the Forest Department.
Coorg	1,582	520	..	..	520	32·9	(g) Excludes 971 square miles not under the control of the Forest Department.
North-West Frontier Province.	13,057	(i) 236	(j) ..	..	236	1·8	(h) Excludes 23 square miles not under the control of the Forest Department.
Ajmer	2,767	142	(k)	..	142	5·1	(i) Excludes 14 square miles of military and civil reserved forests.
Baluchistan (portions under British Administration.)	54,228	313	..	472	785	1·4	(j) 121 square miles of civil protected forests are not shown.
Andamans and Nicobar	3,143	85	..	2,122	2,207	70·2	(k) There are only 115 acres of protected forests in Ajmer.
Madras	1,42,272	18,838	..	(l) 668	19,506	13·7	(l) Reserved lands.
Bombay (including Sind)	123,118	(m) 12,092	(n) 484	..	12,576	10·2	(m) Excludes forests in charge of the Revenue Department.
Total 1917-18 ..	1,080,650†	101,233	8,752	141,527	251,512	23·3	‡Excludes 573 square miles for the Delhi Province and 25 square miles for the British Pargana of Manpur (Central India).
„ 1916-17 ..	1,078,585‡	100,308	9,140	137,131	246,579	2··9	
„ 1915-16 ..	1,079,481‡	99,205	9,712	140,083	249,000	23·100	§Includes the area of the Shan States, 54,728 square miles. The forests of these States are under the control of the Forest Department.
„ 1914-15 ..	1,079,149§	97,580	10,105	141,882	249,867	23·15	
„ 1913-14 ..	1,079,638§	96,297	8,390	140,925	245,612	22·7	

*Including 54,728 square miles for the Shan States.

†Excludes 575 square miles for the Delhi Province and 49 square miles for the British Pargana of Manpur (Central India)

STATEMENT II.

Progress made in Forest Settlements during the year 1917-18.

PROVINCE.	Forest Division.	Civil district or territory.	Name of Forest.	AREA IN SQUARE MILES.			COST DURING YEAR.		Entire cost per square mile of areas finally settled.	GOVERNMENT NOTIFICATION OF SETTLEMENT.	
				Finally settled during year.	In hand at commencement of year.	Taken in hand during year.	In Forest Accounts.	In other Accounts.		Number.	Date.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Bengal	....	....	....	1	27	2	..	..	..	..	—
United Provinces ..	....	....	....	390	1,319	..	5,735	..	(a)	..	—
Punjab	....	....	....	..	11	..	..	..	..	..	—
Burma	....	....	....	6	1,107	146	301	..	(b)	—	—
Bihar and Orissa ..	....	....	....	5	1	..	..	..	..	—	—
Assam	....	....	....	470	689	110	358	..	..	—	—
Central Provinces ..	....	....	....	7	7	3	..	..	..	—	—
Coorg	....	....	....	..	1	..	..	..	..	..	—
North West Frontier Province.	....	....	....	..	..	..	..	..	..	..	—
Ajmer	....	....	....	..	..	..	..	..	..	..	—
Baluchistan ..	....	....	....	..	313	..	..	..	..	..	—
Andamans ..	....	....	....	..	85	..	..	..	..	..	—
Madras	....	....	....	5	488	13	20,107	..	..	..	..
Bombay	....	....	....	1	4,606	3	3,410	..	..	..	..
Total 1917-18 ..	....	....	....	885	8,654	277	29,911	..	..	..	..
,, 1916-17 ..	....	....	....	1,261	8,736	1,033	1,27,041	..	..	..	..
,, 1915-16 ..	....	....	....	1,988	8,981	317	84,165	..	..	..	..
,, 1914-15 ..	....	....	....	1,292	2,772	3,193	1,66,34[illegible]	..	..	..	..
,, 1913-14 ..	....	....	....	962	1,573	1,434	1,69,907	..	..	..	..

(a) The settlement of North and South Garhwal Divisions has been included in one account and the cost per square mile will be known when the settlement is completed. The cost of settlement is included with that of Almora and Garhwal Divisions and cannot be gi en separately.

(b) Not yet finally settled.

STATEMENT III.

Demarcation and maintenance of boundaries.

Province.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.	
								On new work.	On repairs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.
Bengal	19	1,264	443	1,726	130	1,133	2,989	557	8,373
United Provinces ..	117	3,317	8,031	11,465	641	2,296	14,402	4,483	30,793
Punjab	232	1,515	6,953	8,700	48	1,252	10,000	2,349	4,828
Burma	204	3,369	14,057	17,630	329	3,180	21,139	4,722	21,775
Bihar and Orissa ..	20	3,898	300	4,218	58	268	4,544	780	1,141
Assam	97	1,147	685	1,929	122	2,014	4,065	2,201	6,273
Central Provinces	199	10,370	20,912	31,481	23	3,083	34,587	1,085	15,591
Coorg	..	..	480	480	..	56	536	148	45
North-West Frontier Province.	..	128	649	777	..	139	916	..	947
Ajmer	..	4	239	243	..	158	401	..	213
Baluchistan ..	..	105	355	460	..	77	537	..	8
Andamans ..	..	..	24	24	33	72	129	..	..
Madras	60	17,996	14,813	32,869	446	1,882	35,197	5,762	18,825
Bombay	146	23,911	14,967	39,024	247	2,883	42,154	2,281	5,102
Total 1917-18 ..	1,094	67,024	82,908	1,51,026	2,077	18,493	1,71,596	24,368	1,13,914
„ 1916-17 ..	3,057	55,758	91,851	1,50,666	2,508	18,334	1,71,508	55,417	87,732
„ 1915-16 ..	5,738	48,025	97,263	1,51,026	4,577	18,437	1,74,040	82,788	76,816
„ 1914-15 ..	4,128	55,091	88,664	1,47,882	7,138	18,898	1,73,919	75,306	1,03,691
„ 1913-14 ..	1,689	51,971	90,860	1,44,700	3,185	17,346	1,65,051	52,179	97,765

STATEMENT IV.

Forest Survey Operations.

Province.	Forest surveyed.	Nature of Survey Operations. 1st Detail Survey. Area.	1st Detail Survey. Cost rate.	2nd Detail Survey. Area.	2nd Detail Survey. Cost rate.	4th Detail Survey. Area.	4th Detail Survey. Cost rate.	Total Area of Detail Survey. 1917-1918.	Total Area of Detail Survey. Total up to date.	Expenditure of the year including mapping and publishing charges debitable to Forests.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	10)	(11)	(12)
		Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	
Bengal	..	..	..	..	..	..	..	..	3,265	..	
United Provinces	Haldwani ..	..	..	..	..	..	..	347	5,310	1,267	(a) 175 linear miles of boundaries have been traversed and plotted on the 4-inch scale.
	West Almora ..	..	..	47	121·6	85	121·6				
	Naini Tal ..	..	..	..							
	South Garhwal	..	..	71							
	Ramnagar ..	..	..	..	..	..	..				
	Chakrata (a)	..	..	..	..	144	56·0				
Punjab	..	..	..	..	..	..	..	..	4,365	577	(b) 68 linear miles of boundaries have been traversed and plotted on 4-inch scale.
Burma	Attaran (b) ..	..	..	..	..	35	118·3	317	16,943	298	(c) 33 linear miles, etc.
	S. Tenasserim(c)	..	..	282	118·3	..	..				
Bihar and Orissa ..	Singbhum and Chaibassa.	..	..	..	..	..	..	..	1,762	..	(d) 52 linear miles, etc.
Assam	Lakhimpur (d)	..	..	185	77·0	..	..	197	3,861	..	
	N. E. Frontier Tract.	12	77·0	..	..	..	..				
Central Provinces ..	Berar ..	..	..	..	..	..	..	..	19,500	1,854	
Coorg	..	..	..	..	..	..	..	..	478	..	
North-West Frontier Province.	..	..	..	..	..	..	..	..	445	..	
Ajmer	..	..	..	..	..	..	..	..	144	112	
Baluchistan ..	..	..	..	..	..	..	..	..	227	..	
Andamans ..	..	..	..	..	..	..	..	..	527	540	
Madras ..	Nellore ..	..	..	134	24·8	45	24·8	210	15,798	526	
	Cuddapah ..	..	..	31	24·8	..	..				
Bombay ..	..	..	..	..	..	..	..	..	12,983	..	
Total 1917-18 ..	..	12	..	750	..	309	..	1,071	85,608	(e) 5,174	(e) Cost of mapping, publishing and special surveys only. Excludes Forest Map Office, Headquarters charges Rs. 52,042.
,, 1916-17 ..	..	..	..	435	..	236	..	671	84,537	(f) 28,903	(f) Cost of etc., etc., charges Rs. 48,419.
,, 1915-16 ..	..	128	..	1,220	..	671	..	2,019	83,866	(g) 45,084	(g) Cost of etc., etc.. charges Rs. 48,624.
,, 1914-15 ..	..	85	..	826	..	34	..	945	81,847	(h) 48,640	(h) Cost of etc., etc., charges Rs. 43,631.
,, 1913-14 ..	..	312	..	877	..	22	..	1,211	80,902	(i) 42,417	(i) Cost of etc.; etc., charges Rs. 39,050.

STATEMENT V.

Progress made in Working Plans.

Province.	Area under sanctioned working plans.					Area not under working plans.				Revisions.			Expenditure on working plans during the year.
	At commencement of the year.	Added during the year.	Deducted during the year.	At close of year.		Plans under preparation.	Plans not under preparation.		Total forest area in Statement I. (Total of column 5, 7, 8 and 9).	Due or required.	In progress at the end of the year.	Revised plans sanctioned during the year.	
				Actual Area.	Percentage of total forest area (as shown in column 10).		Required at present.	Not required at present.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Per cent.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.
Bengal	4,982	..	..	4,982	47	20	1,610	4,090	10,702*	64[illegible]	648	..	1,273
United Provinces ..	4,074	1	37	4,038	54	2,803	620	34	7,495	931	1,368	..	27,119
Punjab	3,876	..	29	3,847	54	176	..	3,051	7,074	3,197	3,197	..	400
Burma	9,685	1,179	..	10,864	7	244	5,551	129,188	145,847	..	313	..	..
Bihar and Orissa ..	1,460	3	..	1,463	39	99	..	2,223	†3,7[illegible]	[illegible]	..	..	..
Assam	1,120	..	..	1,120	5·1	134	2,593	18,184	22,031	3	64	..	..
Central Provinces ..	15,788	784	28	16,544	85	545	57	2,503	19,649	1,789	1,548	..	189
Coorg	520	..	..	520	100	..	..	..	520	..	..	..	15
North-West Frontier Province.	236	..	..	236	100	..	..	..	236	236	..	..	..
Ajmer	142	..	..	142	100	..	..	..	1[illegible]	..	..	142‡	..
Baluchistan ..	..	..	..	..	..	313	..	472	785	..	..	..	..
Andamans ..	708	..	..	708	32	..	..	1,499	2,[illegible]07	..	..	..	..
Madras	8,259	273	..	8,532	44	1,967	6,365	2,642	19,506	..	..	..	..
Bombay	7,707	42	21	7,728	61·5	1,445	1,289	2,[illegible]14	12,[illegible]76	2,[illegible]02	2,877	..	..
Total 1917-18 ..	58,557	2,282	115	60,724	24·0	7,746	18,085	166,000	252,555	9,306	10,015	..	28,996
„ 1916-17 ..	56,763	1,846	21	58,588	23·6	9,340	27,865	152,087	247,880	8,483	10,165	1,125	59,015
„ 1915-16 ..	56,[illegible]51	1,340	47	57,[illegible]44	23·1	11,559	17,862	163,463	250,328	11,05[illegible]	8,510	770	43,392
„ 1914-15 ..	52,86[illegible]	2,762	..	55,629	22·3	..	24,990	159,485	249,867	..	..	..	..
„ 1913-14 ..	50,60[illegible]	3,325	..	53,926	22	..	20,663	159,254	245,612	..	..	..	..

*Includes 18 square miles of reserved and 54 square miles of protected forests not under the control of the Forest Department.
†Includes 971 square miles not under the control of the Forest Department.
‡Revised plan is in force but Government of India's sanction not yet received.

STATEMENT VI.

Expenditure on communications and buildings.

PROVINCE.	New Works.		Repairs.		Other Works.	TOTAL.
	Buildings.	Roads.	Buildings.	Roads.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	10,491	2,120	14,820	13,784	5,651	46,866
United Provinces ..	31,003	49,310	47,144	86,131	16,681	2,30,269
Punjab	30,461	7,648	15,903	11,480	6,920	72,412
Burma	66,540	71,764	62,589	59,070	23,707	2,83,6.0
Bihar and Orissa ..	19,041	27,629	12,105	19,130	2,247	80,152
Assam	6,927	15,684	18,483	12,670	8,046	61,810
Central Provinces ..	51,773	50,925	35,123	47,135	21,082	2,06,038
Coorg	9,631	6,275	4,825	6,446	3,163	30,340
North-West Frontier Province.	6,301	2,106	3,498	3,651	445	16,001
Ajmer	70	118	294	459	3,067	4,008
Baluchistan	..	..	218	..	..	218
Andamans	1,199	27,227	51	2,466	100	31,043
Madras	66,804	92,562	49,131	63,028	8,506	2,80,031
Bombay	52,233	79,913	16,349	76,912	19,514	2,44,921
Total 1917-18	3,52,474	4,33,281	2,80,533	4,02,362	1,19,129	15,87,779
„ 1916-17	2,24,902	3,78,397	2,61,628	3,16,192	1,03,959	12,35,078
„ 1915-16	2,99,699	2,18,516	2,46,691	3,10,047	91,133	11,66,086
„ 1914-15	5,59,391	3,75,798	2,75,747	5,75,596	1,22,358	17,08,890
„ 1913-14	5,81,607	5,11,490	2,61,595	3,37,873	1,23,700	18,16,265

STATEMENT VII.

Breaches of forest rules.

Province.		Cases pending from 1916-17.	NEW CASES OF THE YEAR.					DISPOSED OF DURING THE YEAR.							Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	CONVICTION.		ACQUITTALS.		TOTAL.		
									Cases.	Persons.	Cases	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Bengal	A.	70	3	391	75	87	556	626	493	1,307	31	115	524	1,122	94
	B.	30	6	653	934	457	2,050	2,080	1,992	3,359	..	..	1,992	3,359	88
	C.	..	36	89	21	28	174	174	..	..	..	..	..	..	..
	Total ..	100	45	1,133	1,030	572	2,780	2,880	2,485	4,666	31	115	2,516	4,781	182
United Provinces ..	A.	22	4	56	17	33	110	132	94	228	12	104	106	332	26
	B.	531	39	2,308	1,374	135	3,856	4,387	3,550	16,187	496	4,407	4,046	20,594	341
	C.	..	46	340	12	52	450	450	..	..	..	..	..	..	..
	Total ..	553	89	2,704	1,403	220	4,416	4,969	3,644	16,415	508	4,511	4,152	20,926	367
Punjab	A.	176	3	275	112	72	462	638	393	658	78	259	471	917	150
	B.	162	27	2,990	3,978	131	7,126	7,288	7,147	10,097	..	..	7,147	10,097	140
	C.	..	123	59	27	1	210	210	..	..	..	..	..	..	..
	Total ..	338	153	3,324	4,117	204	7,798	8,136	7,540	10,755	78	259	7,618	11,014	290
Burma	A.	360	12	615	27	174	828	1,188	795	1,420	131	309	926	1,729	..
	B.	643	8	2,821	303	1,040	4,172	4,815	4,056	5,795	..	..	4,056	5,795	..
	C.	..	38	18	..	9	65	65	..	..	..	..	..	..	..
	Total ..	1,003	58	3,454	330	1,223	5,065	6,068	4,851	7,215	131	309	4,982	7,524	720
Bihar and Orissa ..	A.	30	14	86	4	34	138	168	131	463	11	95	142	558	21
	B.	92	6	972	155	51	1,184	1,276	1,207	3,824	3	13	1,210	3,837	52
	C.	..	93	7	..	..	100	100	..	..	..	..	..	..	..
	Total ..	122	113	1,065	159	85	1,422	1,544	1,338	4,287	14	108	1,352	4,395	73
Assam	A.	83	..	181	49	71	301	384	273	729	35	166	308	895	76
	B.	47	5	484	68	129	686	733	649	1,453	..	..	649	1,453	84
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	130	5	665	117	200	987	1,117	922	2,182	35	166	957	2,348	160
Central Provinces ..	A.	22	3	50	125	15	193	215	152	382	35	172	187	554	28
	B.	1,360	100	4,672	6,237	605	11,614	12,974	11,608	32,712	21	65	11,629	32,777	1,345
	C.	..	208	358	21	21	608	608	..	..	..	..	..	..	..
	Total ..	1,382	311	5,080	6,383	641	12,415	13,797	11,760	33,094	56	237	11,816	33,331	1,373
Coorg	A.	2	..	2	..	2	4	6	4	5	..	..	4	5	2
	B.	..	..	13	2	1	16	16	16	26	..	..	16	26	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	2	..	15	2	3	20	22	20	31	..	..	20	31	2
North-West Frontier Province.	A.	43	..	56	69	1	126	169	117	(a) 268	6	22	123	(c) 290	33
	B.	..	2	477	1,399	3	1,881	1,881	1,863	(b) 3,57	18	32	1,881	(d) 3,603	..
	C.	..	23	16	12	6	57	57	..	..	..	..	..	..	..
	Total ..	43	25	549	1,480	10	2,064	2,107	1,980	3,839	24	54	2,004	(e) 3,893	33

(a) And 2 villages (number of persons not given).
(b) And 1 village (number of persons not given).
(c) And 2 villages (number of persons not given).
(d) And 1 village (number of persons not given)
(e) And 3 villages (number of persons not given).

STATEMENT VII—*contd.*

Breaches of forest rules—contd.

Province.		Cases pending from 1916-17.	NEW CASES OF THE YEAR.					DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of trees or forest produce	Grazing within or passing through reserved or protected forests in which prohibited	Other offences.	Total new cases of the year.	Total cases.	Conviction.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Ajmer	A.	2	3	3	5	1	12	14	11	13	1	1	12	14	2
	B.	17	6	165	288	44	503	520	488	938	6	12	494	950	26
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	19	9	168	293	45	515	534	499	951	7	13	506	964	28
Baluchistan	A.	5	..	26	8	7	41	46	38	137	3	7	41	144	5
	B.	2	..	16	48	7	71	73	72	113	1	2	73	115	..
	C.	..	2	1	..	..	3	3	..	..	..	..	..	..	..
	Total ..	7	2	43	56	14	115	122	110	250	4	9	114	259	5
Andamans	A.	..	..	2	..	..	2	2	2	2	..	..	2	2	..
	B.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	..	..	2	..	..	2	2	2	2	..	..	2	2	..
Madras	A.	1,861	44	4,565	1,631	306	6,546	8,407	6,114	17,794	557	1,800	6,671	19,594	1,736
	B.	3,173	69	12,775	4,898	839	18,581	21,754	16,684	36,359	1,206	3,312	17,890	39,671	3,864
	C.	..	1,474	408	60	22	1,964	1,964	..	..	..	..	..	..	..
	Total ..	5,034	1,587	17,748	6,589	1,167	27,091	32,125	22,798	54,153	1,763	5,112	24,561	59,265	5,600
Bombay	A.	348	55	433	370	82	940	1,288	932	1,954	116	430	1,048	2,384	233
	B.	1,990	210	7,302	8,718	1,013	17,243	19,233	17,024	37,879	..	91	17,024	37,970	2,209
	C.	..	1,477	2,012	52	31	3,572	3,572	..	..	..	..	..	..	..
	Total ..	2,338	1,742	9,747	9,140	1,126	21,755	24,093	17,956	39,833	116	521	18,072	40,354	2,442
Grand Total ..	A.	3,024	141	6,741	2,492	885	10,259	13,283	9,549	25,360	1,016	3,480	10,565	28,840	2,406
	B.	8,047	478	35,648	28,402	4,455	68,983	77,030	66,356	1,52,313	1,751	7,934	68,107	1,60,247	8,149
	C.	..	3,520	3,308	205	170	7,203	7,203	..	..	..	..	..	..	..
Total 1917-18	..	11,071	4,139	45,697	31,099	5,510	86,445	97,516	75,905	1,77,673	2,767	11,414	78,672	1,89,087	11,275* (d)
„ 1916-17	..	10,271	4,130	50,533	32,815	5,637	93,146	103,417	70,765	1,65,969	12,402	29,804	83,167	1,95,773	11,101 (c)
„ 1915-16	..	11,165	4,884	52,034	33,990	5,183	96,102	107,198	66,057	1,49,105	20,592	45,041	90,675	1,94,156	103,398 (b)
„ 1914-15	..	10,067	3,634	51,654	32,362	5,447	93,097	103,164	78,179	1,74,348	3,591	10,149	85,838	1,84,497	11,179 (a)
„ 1913-14	..	9,052	4,012	50,899	33,938	5,541	94,390	1[illegible],531	83,026	1,74,084	1,114	4,139	88,411	1,78,223	10,084

N.B. A. Cases taken into Court.
B. Cases compounded.
C. Undetected cases.
(*a*) Excludes 1116 undetected cases and 1910 cases struck off.
(*b*) „ 3,796 „ „ 2,341 „ „
(*c*) „ 3,475 „ „ 1,716 „ „
(*d*) „ 3[illegible] „ „ 1,383 „ „

* Burma has given the figures for the total of pending cases at the close of the year, *viz.*, 729, but has not shown separately "A" and "B" cases.

STATEMENT VIII.

Area protected from fire.

Province.	Area in square miles.		Percentage of forests under fire protection to total area of reserves.	Percentage of failure to area attempted.		Remarks.
	Attempted.	Protected.		Average of past five years to 1916-17.	1917-18.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Bengal	575	563	11·8	1·9	2·1	
United Provinces	3,626	3,590	59·3	3·4	1·9	
Punjab	1,059	1,047	50·1	2·0	1·1	
Burma	1,750	1,681	6 0	4·4	3·9	
Bihar and Orissa	(a) 1,694	(a) 1,596	97·0	(b)	5·8	(a) Excludes protected forests under fire protection. (b) Refers to the old province of Eastern Bengal and Assam.
Assam	273	271	5·1	6·1	·7	
Central Provinces	9,472	9,313	48·2	1·6	1·7	
Coorg	123	120	23·7	1·7	2·4	
North-West Frontier Province	85	84	36·0	7·9	·09	
Ajmer	141	140	99·3	..	·7	
Madras	15,965	14,516	84·7	7·4	9·1	
Bombay	12,188	11,785	100·8	3·7	3·3	
Total 1917-18	46,951	44,706	46·3	4·5	4·8	
„ 1916-17	48,464	46,588	48·3	4·7	3·9	
„ 1915-16	49,051	45,585	46·0	4·1	7·1	
„ 1914-15	50,203	48,487	51·4	4·5	3·4	
„ 1913-14	49,970	47,983	51·9	4·6	4·0	

STATEMENT IX.

Causes of forest fires.

Province.	Fires [illegible] operations.		External fires crossing the fire traces.		Fires due to carelessness of outsiders.		Fires originating from intention or malice.		Fires due to unknown causes.		Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.	No.	Sq. M.
Bengal	1	·1	2	·1	12	2·6	2	..	19	9	36	12·
United Provinces ..	41	1·6	12	18·1	52	1·2	13	10·6	36	4·2	154	36
Punjab	6	..	10	1·2	84	3·6	45	13·4	14	·2	159	18·
Burma	16	1·8	14	1·8	45	7·3	38	54 1	29	4·2	142	69·
Bihar and Orissa ..	7	·2	3	2·5	8	47·7	25	19·9	27	51·9	70	122·2
Assam	..	..	2	..	3	·2	..	..	3	3·5	8	3·7
Central Provinces ..	27	19·4	30	23·2	50	11·6	2	1·1	125	103·2	234	158·5
Coorg	1	·1	11	1·2	4	·1	4	1·4	..	..	20	2·8
North-West Frontier Province.	..	..	9	1·9	16	·5	37	22·6	..	..	62	25·0
Ajmer	1	..	2	..	8	·7	3	·1	..	..	14	·8
Baluchistan	..	..	..	..	2	..	..	..	..	..	2	..
Andamans	..	..	..	..	..	..	..	..	..	..	..	..
Madras	57	13	282	237·9	432	142·5	710	735	745	488·6	2,226	1,617·0
Bombay	48	7·9	172	53·1	344	90·2	279	101·3	922	151·0	1,765	403·5
Total 1917-18 ..	205	44·1	549	341·0	1,060	308·2	1,158	959·5	1,920	815·8	4,892	2,469·1
„ 1916-17 ..	226	83·1	518	293·8	1,164	235·4	971	539·0	2,066	872·0	4,943	2,023·2
„ 1915-16 ..	276	155·1	692	747·8	1,447	500·0	1,272	1002·4	2,332	1,400·9	6,019	3,806·3
„ 1914-15 ..	255	96·9	419	373·0	1,068	250·2	927	297·7	1,609	664·1	4,278	1,681·8
„ 1913-14 ..	319	148·2	431	126·1	1,278	332·7	690	359·0	2,038	723·6	4,756	1,989·6

STATEMENT X.

Area closed and open to grazing.

Province.	Area in square miles.							Remarks.
	Closed to all animals.		Open to grazing.				Total area.	
			Of all animals.		*Of all animals except browsing camels, sheep and goats.*			
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Bengal	5,803	7	4,747	..	82	63	(a) 10,702	(a) Includes 18 sq. miles of other reserves and 54 sq. miles of other protected forests.
United Provinces ..	2,264	142	4,352	..	735	2	7,495	
Punjab	406	229	5,739	145	369	186	7,074	
Burma	22,572	..	(b) 116,731	221	2,160	4,163	145,847	(b) Unclassed forests.
Bihar and Orissa ..	1,391	..	518	..	950	..	(c) 2,859	(c) Includes 45 sq. miles not under the control of the Forest Department.
Assam	4,417	148	17,466	..	..	..	22,031	
Central Provinces ..	3,168	193	5,091	..	11,197	..	19,649	
Coorg	61	445	..	..	14	..	520	
North-West Frontier Province.	22	..	46	..	49	119	236	
Ajmer	67	72	..	..	3	..	142	
Baluchistan ..	157	..	(d) 568	47	13	..	785	(d) Includes 472 sq. miles of unclassed forests.
Andamans ..	85	..	2,122	..	..	..	2,207	
Madras	4,101	593	13,616	764	432	..	19,506	
Bombay	2,735	21	3,361	..	8,329	331	14,975	
Total 1917-18 ..	47,249	2,048	174,357	1,177	24,333	4,864	254,028	
„ 1916-17 ..	45,765	1,863	171,882	1,736	24,026	4,853	250,125	
„ 1915-16 ..	44,784	6,856	177,732	..	22,789	440	252,601	
„ 1914-15 ..	45,021	6,266	178,869	..	22,975	428	253,559	
„ 1913-14 ..	43,591	6,699	175,336	..	23,302	436	249,364	

STATE

Protection

PROVINCE.	GRAZED ON PAYMENT, NUMBER OF ANIMALS.									
	AT FULL RATES.					AT PRIVILEGED RATES.				
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bengal	1,769	1,085	266	..	30	96	40,053	94	..	14
United Provinces ..	70,782	184,074	123,782	56	3,448	13,058	54,354	31,303	11	1,783
Punjab	17,749	25,710	328,170	12,415	351	1,406	13,873	317,855	..	297
Burma	7,401	21,530	1,289	..	57	..	..	..	..	..
Bihar and Orissa ..	8,191	33,876	6,671	..	96	9,007	136,559	14,688	..	..
Assam	136,417	78,268	916	..	582	7,630	..	..	..	..
Central Provinces ..	279,782	849,687	355,967	63	3,144	103,123	1,583,358	3,110	..	309
Coorg	323	3,728	..	..	..	..	..	..	..	..
North-West Frontier Province.	2,043	2,338	1,598	..	19	..	..	..	..	..
Ajmer	181	1,244	..	189	..	1,916	8,798	..	..	..
Baluchistan	451	2,179	..	..	48	..	40	..	..	..
Madras	83,514	627,128	551,218	..	1	12,247	92,501	56,130	..	21,069
Bombay	33,802	(a) 138,712	81,937	2,630	7,215	171,576	(a) 1,284,290	283,025	..	6,588
Total 1917-18	642,405	1,969,559	1,451,814	15,353	14,991	320,059	3,213,826	706,205	11	30,060
„ 1916-17 ..	639,633	2,178,006	1,970,641	21,929	14,520	315,515	3,358,537	646,333	188	28,494
„ 1915-16 ..	596,595	2,238,326	2,188,122	18,160	12,030	333,966	3,517,467	599,894	17	26,559
„ 1914-15 ..	601,839	2,475,321	2,618,384	11,746	18,409	307,563	3,274,365	554,814	1,356	24,422
„ 1913-14 ..	762,295	3,083,544	2,736,813	14,353	20,883	239,291	2,822,584	458,069	..	20,491

(a) Includes buffaloes in the Southern Circle.

MENT XI.

from cattle.

GRAZED FREE, NUMBER OF ANIMALS.									
BY RIGHT UNDER SETTLEMENT.					DURING PLEASURE OF GOVERNMENT OR OTHERWISE THAN UNDER SETTLEMENT.				
Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animal
(12)	(13)	(14)	(15)	(16)	(17)	18)	(19)	(20)	(21)
..	..	..	..	..	987	2,407	..	..	1
31,792	440,774	40,286	..	1,564	6,017	30,548	25,728	..	100
134,086	646,211	1,306,190	185	187,854	1,186	13,383	6	3,805	102
153,032	616,661	192	..	295	15,334	1,144	..	..	7,194
30,866	99,834	21,000	..	..	323	1,073	585	..	..
..	340	..	..	..	67,037	412,584	77,872	..	325
..	375	..	..	..	1,201	253,738	522	..	105
..	452	..	..	..	..	8,004	..	..	..
6,973	9,753	..	..	..	5,984	10,439	..	..	461
..	..	..	..	..	1,212	5,152	..	..	..
..	3,310	53,226	1	1,193	4	334	..	207	..
913	2,204	840	..	5,476	9,282	70,652	1,482	..	22
2,556	7,574	..	..	52	94,127	476,216 (a)	5,641	1,913	5,008
360,218	1,827,488	1,421,734	186	196,434	202,694	1,285,674	111,836	5,925	14,218
352,560	1,812,145	1,436,676	279	188,338	206,295	1,299,857	97,668	3,938	17,133
342,757	1,723,167	1,428,343	279	189,221	192,075	1,221,831	93,714	5,600	15,070
246,601	1,166,591	1,432,644	279	182,992	189,832	1,143,758	82,648	3,351	6,464
243,388	1,108,288	1,435,051	310	183,445	175,601	1,057,944	88,729	4,083	8,212

STATEMENT XII.

Area of plantations and the cost of the year's work.

Province.	Area in acres at close of the year.			Cost of operations during the year.
	Regular Plantations.	Taungyas.	Total	
(1)	(2)	(3)	(4)	(5)
Bengal	2,520	361	2,881	4,287
United Provinces	(a) 15,961	..	15,961	32,475
Punjab	4,548	..	4,548	41,939
Burma	3,354	(b) 77,146	80,500	37,393
Bihar and Orissa	919	..	919	3,749
Assam	3,383	1,113	4,496	970
Central Provinces	(c) 1,501	(d) 6,584	8,085	2,325
Coorg	2,072	2,924	4,996	4,360
North-West Frontier Province	..	..	..	..
Ajmer	149	..	149	73
Baluchistan	46	..	46	15
Andamans	2,563	..	2,563	11,217
Madras	(e) 24,569	693	25,262	21,221
Bombay	(f) 2,519	..	2,519	16,502
Total 1917-18 ..	64,104	88,821	152,925	176,526
„ 1916-17 ..	71,281	88,184	159,465	173,774
„ 1915-16 ..	69,496	86,031	155,527	143,177
„ 1914-15 ..	63,151	87,059	150,210	173,001
„ 1913-14 ..	55,755	87,830	143,585	184,837

(a) 56 acres excluded during the year.
(b) 2,249 acres excluded during the year.
(c) 3 acres excluded during the year.
(d) 396 acres excluded during the year.
(e) 793 acres excluded during the year.
(f) 4,890 acres excluded during the year.

STATEMENT XIII.

Outturn of forest produce.

Province.	Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.		Average outturn per square mile.							
									Reserved Forests.		Protected Forests.		Unclassed Forests.		Total.	
	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.	Timber and fuel.	Minor produce.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Bengal	18,934,000	3,71,226	531,000	17,061	682,000	29,974	20,147,000	4,18,261	3,873	76	310	10	109	7	1,895	39
United Provinces	29,168,000*	21,85,473	4,030,000	4,870	62,000	3,346	33,260,000	21,93,689	4,771	358	3,051	4	1,016	55	4,438	293
Punjab	12,701,000	11,94,533	17,515,000	11,49,577	5,160,000	58,377	35,376,000	24,02,487	6,014	566	4,291	276	6,507	74	5,001	340
Burma	31,751,000	4,97,903	..	..	50,118,000	3,93,289	81,869,000	8,91,192	1,091	17	..	..	429	3	561	6
Bihar and Orissa	3,599,000	108,732	15,165,000	1,55,306	134,000	315	18,898,000	2,64,353	2,060	62	14,213	146	..	..	6,716	94
Assam	2,949,000	1,16,180	..	..	10,877,000	11,20,329	13,826,000 §	12,36,509	548	22	..	..	653	67	628	56
Central Provinces	34,326,000	22,67,743	..	..	..	..	34,326,000	22,67,743	1,747	115	..	..	..	..	1,747	115
Coorg	305,925	14,352	169,024	157	..	..	474,949	14,509	588	28	..	..	..	..	588	28
North-West Frontier Province.	3,204,000†	30,805	..	..	..	..	3,204,000	30,805	13,576	131	..	..	..	..	13,576	131
Ajmer	190,259	25,106	..	439	..	..	190,259	25,545	1,340	177	..	..	..	..	1,340	180
Baluchistan	120,375	43,377	..	..	234,796	33	355,171	43,410	385	139	..	..	497	..	452	55
Andamans	622,000	1,946	..	..	1,197,000	1,552	1,819,000	3,498	7,318	23	..	..	564	1	824	2
Madras	18,638,000‡	23,04,793	..	..	8,627,000	2,20,944	27,265,000	25,25,737	989	122	..	..	12,915	331	1,398	129
Bombay	56,003,000	13,57,930	1,609,000	..	44,000	..	57,656,000	13,57,930	4,631	112	3,324	..	..	..	4,585	108
Total 1917-18	212,511,559	1,05,20,099	39,019,024	13,27,410	77,135,796	18,28,159	328,666,379	1,36,75,668	2,099	104	4,459	152	545	13	1,307	54
" 1916-17	192,371,761	97,12,650	36,800,968	13,28,362	77,696,669	14,15,584	306,869,398	1,24,56,596	1,918	97	4,026	145	567	10	1,245	51
" 1915-16	179,458,949	88,90,881	36,511,983	13,82,726	70,245,179	14,07,130	286,216,111	1,16,80,737	1,809	90	3,759	142	501	10	1,149	47
" 1914-15	166,127,920	80,97,598	38,147,762	14,61,904	66,179,777	12,03,781	270,455,459	1,07,63,283	1,702	83	3,666	141	466	8	1,082	43
" 1913-14	185,988,403	82,11,087	26,629,457	13,53,532	82,025,463	12,34,286	294,643,323	1,07,98,905	1,931	85	3,174	161	582	9	1,200	44

*Includes leased forests.
†Excludes lapsed or seized timber and guzara forests.
‡Reserved and unreserved lands.
§Excludes shared forests.

STATEMENT XIV.

Forest produce removed by different agencies.

PART I.—*Timber and Fuel.*

PROVINCE.	TIMBER.					FUEL.				
	By Government.	By purchasers.	By free grantees.	By right holders.	TOTAL.	By Government.	By purchasers.	By free grantees.	By right holders.	TOTAL.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Bengal	343,000	7,414,000	5,000	..	7,762,000	27,000	11,247,000	1,111,000	..	12,385,000
United Provinces	1,050,000	7,647,000	73,000	491,000	9,261,000	934,000	6,975,000	237,000	15,853,000	23,999,000
Punjab	1,285,000	5,627,000	192,000	1,156,000	8,260,000	2,434,000	1,088,000	86,000	23,508,000	27,116,000
Burma	5,008,000	34,466,000	552,000	1,418,000	41,444,000	2,648,000	35,744,000	177,000	1,856,000	40,425,000
Bihar and Orissa	55,000	1,660,000	15,000	200,000	1,930,000	50,000	2,167,000	3,000	14,748,000	16,968,000
Assam	137,000	3,973,000	741,000	..	4,851,000	19,000	3,517,000	5,664,000	9,000	9,209,000
Central Provinces	940,000	7,906,000	169,000	66,000	9,081,000	816,000	22,137,000	1,610,000	682,000	25,245,000
Coorg	125,971	173,698	750	..	300,419	64,255	110,275	..	..	174,530
North-West Frontier Province ..	75,000	1,764,000	17,000	4,000	1,860,000	180,000	378,000	423,000	480,000	1,461,000
Ajmer	39	623	..	204	866	29,631	158,124	1,638	..	189,393
Baluchistan	217	2,332	937	..	3,486	168,849	182,836	..	..	351,685
Andamans	1,001,000	42,000	23,000	64,000*	1,130,000	426,000	8,000	184,000	71,000*	689,000
Madras	632,000	3,383,000	125,000	103,000	4,243,000	1,071,000	2,136,700	3,000	581,000	23,022,000
Bombay	2,223,000	4,809,000	58,000	77,000	7,167,000	5,649,000	35,465,000	58,000	9,317,000	50,489,000
Total 1917-18 ..	12,875,227	78,867,653	1,971,687	3,570,204	97,293,771	14,516,735	140,544,235	9,557,638	67,105,000	231,723,608
„ 1916-17 ..	9,426,753	74,767,326	1,980,778	3,904,753	90,079,610	12,382,340	134,200,227	9,229,566	61,322,000	217,134,133
„ 1915-16 ..	8,666,189	66,098,444	2,065,791	3,473,887	80,304,311	12,001,836	124,187,363	10,850,372	59,433,459	206,473,030
„ 1914-15 ..	7,985,592	64,265,882	2,679,787	6,364,563	81,295,824	10,669,896	116,279,082	8,863,291	3,577,265	189,689,534
„ 1913-14 ..	7,655,518	81,809,626	4,299,819	3,460,207	97,225,170	13,632,994	124,457,870	18,894,872	40,432,417	197,418,153

* By district officers.

STATEMENT XIV—*contd.*

Forest produce removed by different agencies—contd.

PART II.—*Value of minor forest produce.*

PROVINCE.	BAMBOOS.					GRAZING AND FODDER GRASS.					OTHER MINOR PRODUCE.				
	By Government.	By purchasers.	By free grantees	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.	By Government.	By purchasers.	By free grantees.	By right holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	39	1,08,536	58	..	1,08,633	..	33,087	24,430	..	57,517	35,037	2,11,6 8	5,406	..	2,52,111
United Provinces ..	176	2,29,349	23	6,464	2,36,012	23,567	1,50,771	5,475	2,36,050	4,21,863	11,90,209	2,01,783	5,807	47,804	15,35,714
Punjab	56,467	7,719	10	355	64,551	..	1,95,635	17,959	20,09,077	22,22,671	60,941	8,920	314	45,086	1,15,265
Burma	428	2,22,676	1,932	16,582	2,41,618	4	11,668	56,071	2,49,483	3,18,129	4,076	2,60,654	998	66,317	3,32,045
Bihar and Orissa ..	11,590	23,840	156	21,928	57,514	..	8,437	932	82,672	92,041	501	88,409	2	25,796	1,14,708
Assam	69	26,012	12,934	..	39,015	..	3,55,830	3,87,214	127	7,43,161	15,625	2,31,595	2,07,134	..	4,54,354
Central Provinces ..	6,222	2,86,500	5,288	3,931	3,01,941	5,680	15,06,373	1,54,621	1,328	16,68,005	32,190	2,14,850	17,263	3,485	2,97,797
Coorg	9	(a) 1,377	7	..	1,393	..	1,205	..	..	1,205	387	11,434	..	..	11,821
North-West Frontier Province.	..	..	..	..	..	..	4,921	17,125	7,050	29,096	71	1,520	15	100	1,709
Ajmer	..	219	..	..	219	503	1,197	1,084	20,870	23,937	433	921	..	..	1,359
Baluchistan ..	..	..	..	..	..	201	1,020	189	11,170	42,070	56	238	113	..	407
Andamans ..	72	42	100	582	886	..	..	..	..	..	173	271	1,044	224	2,612
Madras	20,527	3,12,495	1,903	705	3,35,710	31,960	7,18 163	16,867	2,754	8,02,341	1,07,312	11,92,484	1,417	26,170	13,87,683
Bombay	86,223	73,201	577	13,021	1,73,022	139	5,22,576	8,448	3,61,962	8,93,125	42,175	1,86,659	2,090	60,859	2,91,783
Total 1917-18 ..	1,81,822	12,01,980	22,568	63,568	15,50,944	65,204	37,17,175	6,01,323	30,12,452	73,16,154	15,40,180	27,31,150	2,42,627	2,76,201	17,90,458
,, 1916-17	34,860	13,39,506	20,376	58,803	14,53,545	6,559	33,82,113	6,45,721	30,22,"	76,684	8,75,284	25,59,752	2,61,010	2,45,708	39,40,754
,, 1915-16 ..	27,668	11,80,035	10,822	52,962	12,71,487	78,442	32,45,767	5,96,750	30, 1	,22,359	6,13,596	23,04,610	2,50,750	2,58,387	34,87,343
,, 1914-15 ..	34,309	10,22,060	12,049	49,187	11,17,605	28,234	32,54,843	5,48,908	27,97, 31	66,2 ,516	5,85,163	19,52,132	2,57,547	2 24,457	30,19,299
,, 1913-14 ..	47,367	11,70,509	29,401	58,276	13,05,553	1,62,578	22,40,611	6,07,302	26,70,618	63,81,109	5,08,868	21,04,757	2,80,140	2,17,914	31,11,679

(a) Includes cost of 58,800 reeds.

STATEMENT XV.

Exports of forest produce.

ARTICLES OF FOREST PRODUCE.		QUANTITY IN TONS OF 20 CWT. IN THE CASE OF TEAK AND OTHER TIMBERS, CUBIC TONS.		VALUATION AT PORT OF SHIPMENT IN 1917-18.	
		Average of 5 years 1912-13 to 1916-17.	In 1917-18.	Total.	Per ton.
(1)		(2)	(3)	(4)	(5)
				Rs.	Rs.
Caoutchouc, raw		1,851	3,763	1,62,19,334	4,310
Lac ..	Button	1,046	138	4,24,229	3,074
	Shell	16,023	14,484	3,59,14,763	2,480
	Stick, seed and other kinds ..	2,258	1,499	14,39,042	960
Cutch and Gambier		3,955	2,107	6,71,267	319
Myrabolams		62,847	40,777	47,29,542	116
Cardamums		165	399	12,03,312	3,016
Sandal, ebony and other ornamental woods ..		(a)	(a)	7,89,528	..
Teak		42,934	14,931	31,25,167	209
Other timbers		5,226	1,574	1,14,814	73
Total 1917-18		..	..	6,46,30,998	..
„ 1916-17		..	..	2,99,84,737	..
„ 1915-16		..	..	4,79,30,443	..
„ 1914-15		..	..	4,17,49,407	..
„ 1913-14		..	..	4,54,25,118	..

(a) Quantity (whether by weight or measurement) is not recorded.

STATEMENT XVI.

Estimated value of forest produce given away free or at reduced rates.

Province.	Timber.	Fuel.	Bamboos.	Grass and grazing.	Other minor produce.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	1,141	21,285	43,282	34,127	5,466	1,05,301
United Provinces	62,471	1,35,983	6,487	2,48,430	54,779	5,08,150
Punjab	42,885	8,50,247	365	20,27,036	45,404	29,65,937
Burma	1,64,763	25,402	21,659	3,06,457	63,570	5,81,851
Bihar and Orissa	19,180	1,68,566	22,084	83,604	27,243	3,20,677
Assam	61,747	65,816	12,934	3,99,345	2,07,134	7,46,976
Central Provinces	15,430	73,125	17,298	11,62,452	19,389	12,87,694
Coorg	..	..	..	2,134	55	2,189
North-West Frontier Province ..	3,237	20,694	..	24,175	115	48,221
Ajmer	..	..	..	21,965	..	21,965
Baluchistan	..	..	..	41,470	474	41,944
Andamans	2,635	6,352	792	..	2,168	11,947
Madras	36,043	5,967	2,698	19,221	27,887	91,816
Bombay	3,16,866	10,11,141	28,598	6,70,797	2,42 949	22,70,351
Total 1917-18 ..	7,26,398	23,84,578	1,56,197	50,41,213	6,96,633	90,05,019
„ 1916-17 ..	7,63,685	23,58,964	1,37,104	46,31,902	7,05,309	85,96,964
„ 1915-16 ..	7,47,553	23,35,459	1,08,415	45,92,908	7,32,981	85,17,316
„ 1914-15 ..	9,78,430	22,71,655	1,02,095	43,67,560	6,85,948	84,05,688
„ 1913-14 ..	9,13,245	19,27,965	1,13,992	37,72,590	6,77,202	74,04,994

STATEMENT XVII.

Details of revenue and expenditure for the Forest year 1917-18.

					Rs.
Gross Receipts ..	(*a*) Wood				3,22,05,071
	(*b*) Minor forest produce				33,42,253
	(*c*) Forest stamps and commutation fees for forest produce				1,08,153
	(*d*) Grazing				35,18,856
	(*e*) Revenue from forests not managed by Government				2,13,103
	(*f*) Miscellaneous				29,55,896
			Total Revenue ..		4,23,43,332
Expenditure ..	A. Recurring ..	(*a*) Administration.	(*i*) Superior Staff		35,98,547
			(*ii*) Subordinate Staff (including Rangers, Foresters and Guards).		38,37,554
			(*iii*) Office Establishments (including Contingencies).		20,01,495
		(*b*) Working	(1) Extraction		72,50,524
			(2) Roads and Buildings		15,68,416
			(3) Fire protection		4,59,650
			(4) Cultural operations		7,59,481
			(5) Live-stock, stores and plant ..		5,32,943
			(6) Working-Plans		34,061
			(7) Rent for leased forests		2,19,720
			(8) Miscellaneous		3,33,541
		(*c*) Expenditure on realization of revenue from forests not managed by Government.			20,943
		(*d*) Forest Science and Education (including all "A" and "B" charges of Imperial Forest College and Research Institute.*			2,90,585
			Total		2,09,07,460
	B. Extraordinary ..	(*e*) Forest Settlement			56,196
		(*f*) Forest Survey			98,635
		(*g*) Forest Demarcation			1,42,567
			Total		2,97,398
			GRAND TOTAL OF EXPENDITURE		2,12,04,858
			Net Revenue ..		2,11 38,474

* Expenditure under this head in provinces has been included in (*a*) Administration

STATE

Summary of revenue and expenditure of the Forest

Budget Heads.	Imperial.	Bengal.	United Provinces.	Punjab.	Burma.	Bihar and Orissa.	Assam.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
REVENUE.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the forests by Government agency.	46,342	22,279	20,37,327	9,35,781	27,70,465	22,933	1,30,506
II.—Timber and other produce removed from the forests by consumers or purchasers.	5,378	12,88,334	39,45,390	8,68,636	89,71,874	7,00,823	9,98,693
III.—Drift and waif wood and confiscated forest produce.	..	9,649	6,182	33,579	2,58,228	60	23,595
IV.—Revenue from forests not managed by Government.	..	..	19,151	1,599	1,15,874	..	58,545
V.—Miscellaneous	..	56,707	1,08,647	2,78,181	2,45,058	29,809	98,617
Total Revenue ..	(a) 51,720	13,76,969	61,16,697	21,17,776	1,23,61,499	7,53,625	13,09,956
EXPENDITURE.							
A.—Conservancy and Works.							
I.—Timber and other produce removed from the forest by Government agency.	5,331	91,887	13,55,375	3,90,066	18,90,318	8,531	78,240
II.—Timber and other produce removed from the forests by consumers or purchasers.	..	1,47,529	66,625	3,903	1,81,469	15,054	30,572
III.—Drift and waif wood and confiscated forest produce.	..	1,062	2,057	18,742	81,622	..	1,105
IV.—Revenue from forests not managed by Government.	..	..	6,626	..	280	..	12,072
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	2,03,035	30,970	46	..	36,304
VI.—Live-stock, stores, tools and plant	..	10,116	47,254	30,915	1,20,239	3,906	25,947
VII.—Communications and buildings ..	..	50,626	2,23,144	56,319	2,84,854	77,403	64,053
VIII.—Demarcation, improvements and extension of forests.	569	47,619	2,94,643	1,05,240	2,94,363	32,690	20,039
IX.—Miscellaneous	..	10,000	33,025	46,845	37,160	3,435	11,082
Total A.—Conservancy and Works ..	(b) 5,900	3,58,839	22,31,784	6,83,000	28,90,351	1,41,019	2,79,414
B.—Establishments.							
I.—Salaries	84,179	3,02,765	7,31,933	3,63,985	20,71,387	2,10,487	3,26,486
II.—Travelling allowances	..	60,267	1,27,554	72,533	3,62,241	29,520	58,819
III.—Contingencies	253	16,841	1,13,657	38,530	1,63,200	9,690	21,908
Total B.—Establishments ..	(c) 84,432	3,79,873	9,73,144	4,75,048	25,96,828	2,49,697	4,07,213
Grand Total of Expenditure ..	90,332	7,38,712	32,04,928	11,58,048	54,87,179	3,90,716	6,86,627
Surplus ..	..	6,38,257	29,11,769	9,59,728	68,74,320	3,62,909	6,23,329
Deficit ..	38,612	..	..	..	..	..	..
Proportion of surplus to gross revenue	..	46	48	45	56	48	48
Net revenue per square mile of forest area under control of Forest Department.	..	60	388	136	47	129	28

(a) Includes revenue derived from Indore, Rajputana and Bangalore.
(b) Includes expenditure on account of Indore and Bangalore.
(c) Includes expenditure on account of Indore and Rajputana.

MENT XVIII.

Department in India for the financial year 1917-18.

Central Provinces.	Coorg.	North-West Frontier Province.	Ajmer.	Baluchistan.	Andamans.	Forest College and Research Institute.	Forest Surveys (Imperial).	Madras.	Bombay.	TOTAL.
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
99,046	3,84,908	38,209	4,890	9,089	7,86,024	..	..	13,90,311	18,38,443	1,05,16,553
31,70,454	62,116	2,85,611	19,384	2,402	6,943	..	..	35,39,020	42,60,230	2,81,25,288
959	..	2,225	10	..	405	..	..	18,765	3,764	3,57,421
4,955	..	810	..	6,246	..	..	..	..	12,905	2,20,085
1,91,079	11,649	10,856	3,449	197	284	8,304	..	5,10,393	1,96,680	17,49,910
34,66,493	4,58,673	3,37,711	27,733	17,934	7,93,656	8,304	..	54,58,489	63,12,022	4,09,69,257
47,356	30,519	36,626	2,308	5,846	2,46,746	..	..	3,20,314	13,94,949	59,04,412
1,52,580	..	1,403	438	..	259	..	..	1,10,287	51,687	7,61,806
30	..	485	..	..	..	..	..	2,202	119	1,07,424
..	..	..	..	146	..	..	..	..	8	19,132
..	..	30,674	..	..	..	..	..	18,809	30,817	3,50,655
37,697	10,308	4,705	45	18	61,667	5,922	..	1,34,794	17,666	5,11,199
1,85,154	24,958	11,927	3,997	222	2,808	9,961	..	2,82,475	2,25,382	15,03,283
1,74,368	53,895	2,315	1,681	25	13,413	68	56,597	4,02,618	1,45,073	16,45,216
22,870	3,307	1,616	51	152	628	23,933	..	26,488	53,315	2,73,907
6,20,055	1,22,987	89,751	8,520	6,409	3,25,521	39,884	56,597	12,97,987	19,19,016	1,10,77,034
10,20,594	63,002	49,973	14,693	20,450	63,783	2,01,172	..	13,04,798	12,23,062	80,52,749
1,39,054	11,003	9,279	2,087	2,675	7,081	26,068	..	2,78,737	1,51,804	13,38,722
92,421	2,949	4,872	1,204	465	1,339	22,570	..	1,38,827	59,832	6,88,558
12,52,069	76,954	64,124	17,984	23,590	72,203	2,49,810	..	17,22,362	14,34,698	1,00,80,029
18,72,124	1,99,941	1,53,875	26,504	29,999	3,97,724	2,89,694	56,597	30,20,349	33,53,714	2,11,57,063
15,94,369	2,58,732	1,83,836	1,229	..	3 95 932	..	..	24,38,140	29,58,308	1,98,12,194
..	..	..	..	12,065	..	2,81,390	56,597	..	..	..
46	56	54	4	..	50	..	..	45	47	..
81	498	779	9	..	179	..	..	125	235	..

STATE

Revenue, expenditure and surplus of the Forest Department throughout India for the 19 financial

PROVINCE.	Average of 1869-70 to 1873-74.	Average of 1874-75 to 1878-79.	Average of 1879-80 to 1883-84.	Average of 1884-85 to 1888-89.	Average of 1889-90 to 1893-94.	Average of 1894-95 to 1898-99.	1899-00.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.*
												(I) REV
Imperial*	Rs. 2,175	Rs. 31,717	Rs. 25,429	Rs. 10,866	Rs. 5,147	Rs. 9,688	Rs. 6,090	Rs. 2,463	Rs. 3,484	Rs. 3,659	Rs. 7,455	Rs. 3,768
Bengal†	1,64,368	2,89,772	6,06,578	6,31,384	7,66,431	10,49,364	11,38,910	12,33,339	12,92,237	12,56,247	10,65,523	11,67,472
United Provinces ..	12,59,979	12,21,650	11,34,615	14,63,525	16,89,190	15,31,824	16,14,740	15,65,463	17,15,508	20,25,824	22,80,446	23,97,318
Punjab	6,87,423	7,05,558	7,37,338	9,11,950	9,00,417	11,39,510	14,00,770	13,50,842	14,47,558	15,86,408	17,17,797	18,74,443
Burma	8,94,298	14,29,175	19,88,356	25,01,318	49,78,654	66,15,542	78,12,050	80,54,444	58,73,938	67,39,053	82,68,535	89,59,756
Bihar and Orissa ..	...	...	...	...	...	...	...	...	...	...	...	...
Assam‡	...	1,01,098	1,91,887	2,32,055	3,82,750	4,15,912	5,68,100	5,49,521	5,12,963	5,80,200	6,75,732	8,15,677
Central Provinces ..	7,41,879	9,79,936	12,81,992	14,11,163	16,89,505	13,75,958	12,97,490	12,65,614	15,79,116	16,84,428	19,98,032	20,13,459
Coorg	93,491	78,887	1,03,170	1,13,024	1,53,136	1,33,456	1,62,410	1,37,596	1,70,242	1,90,730	2,24,031	1,93,087
North-West Frontier Province.	...	...	...	...	...	...	...	...	13,012	1,01,123	1,01,833	90,991
Ajmer	65	1,152	4,475	11,859	15,233	14,162	10,270	10,646	6,865	9,736	13,884	17,297
Baluchistan	...	...	8,556	10,973	17,998	15,330	17,060	16,956	14,712	19,336	18,363	22,555
Andamans	5,467	4,485	34,840	57,633	2,79,028	2,54,138	2,60,600	2,77,886	2,66,903	3,26,035	4,32,381	6,20,796
Imperial Forest College and Research Institute.	...	...	...	397	1,636	3,040	3,210	3,697	3,545	3,252	3,038	3,557
Forest Surveys (Imperial) ..	...	17	139	206	668	300	420	327	473	3,034	431	...
Total ..	38,49,145	48,43,447	61,17,375	73,56,353	1,08,79,793	1,25,58,521	1,42,22,120	1,44,68,794	1,29,00,556	1,45,28,565	1,68,07,481	1,81,80,176
Madras	6,03,243	5,88,389	8,06,020	13,00,481	17,14,328	21,10,088	23,02,290	23,40,170	25,43,430	26,13,819	26,57,727	28,29,216
Bombay	11,77,673	12,28,561	18,93,818	30,11,314	33,54,893	30,46,214	24,15,200	26,61,529	23,79,729	23,29,156	27,51,539	30,20,558
GRAND TOTAL ..	56,30,061	66,60,397	88,17,213	1,16,68,148	1,59,49,014	1,77,15,756	1,90,09,610	1,97,70,493	1,78,23,715	1,94,71,540	2,22,16,747	2,40,29,950
												(II) EX
Imperial*	63,685	67,102	80,454	87,135	84,125	82,810	96,550	83,578	79,539	85,017	89,345	83,058
Bengal†	1,11,084	2,12,024	3,55,147	3,94,347	4,04,147	5,38,652	5,45,210	5,70,866	6,57,131	6,38,014	7,03,508	6,88,580
United Provinces ..	9,63,005	8,39,709	8,38,638	9,17,898	9,46,423	9,35,078	9,42,380	9,63,439	10,08,739	10,13,998	10,81,438	13,91,583
Punjab	8,29,323	5,57,148	5,41,242	6,44,372	6,46,374	7,50,224	12,11,460	8,87,343	9,38,335	9,60,095	11,56,415	10,12,354
Burma	4,02,847	8,12,279	10,12,512	13,22,424	16,72,383	21,20,642	24,47,440	26,54,717	26,46,457	28,90,263	33,52,404	34,46,924
Bihar and Orissa ..	...	...	...	...	...	...	...	...	...	...	...	...
Assam‡	...	88,293	1,62,460	2,11,655	2,68,159	2,86,870	3,57,140	3,47,972	3,29,112	3,27,498	4,25,484	5,03,656
Central Provinces ..	3,99,072	4,33,734	6,13,539	7,37,805	10,10,057	11,78,660	12,75,820	11,65,866	12,00,004	12,57,288	12,80,966	13,20,615
Coorg	40,684	36,591	62,248	73,907	77,016	82,146	74,220	70,905	82,333	89,437	92,191	83,820
North-West Frontier Province.	...	...	...	...	...	...	...	...	19,510	54,086	60,603	74,958
Ajmer	6,197	18,692	13,197	17,620	14,061	16,722	15,350	16,782	15,927	16,377	16,680	15,641
Baluchistan	...	...	12,594	16,130	39,452	33,508	28,680	29,254	24,480	23,240	21,697	24,672
Andamans	739	481	5,129	41,108	1,76,139	1,85,428	1,40,940	1,40,137	2,04,067	2,81,702	2,66,121	3,42,431
Imperial Forest College and Research Institute.	...	...	...	28,746	45,023	65,120	73,550	71,238	76,290	66,338	59,339	61,424
Forest Surveys (Imperial) ..	11,911	63,298	40,447	24,477	24,491	31,936	33,980	33,991	33,730	33,985	33,935	28,229
Total ..	28,28,550	31,29,341	37,37,627	45,17,623	54,08,450	63,07,802	72,42,720	70,36,028	73,17,154	77,37,338	86,40,126	90,77,954
Madras	4,56,834	5,76,976	6,20,660	10,07,521	12,85,113	15,06,756	16,53,530	17,15,431	17,09,554	18,35,552	17,50,930	19,86,098
Bombay	6,48,046	8,70,487	12,51,292	18,41,812	19,09,789	19,81,582	21,28,430	24,08,581	17,79,680	16,76,441	17,75,937	19,03,804
GRAND TOTAL ..	39,33,430	45,76,804	56,09,579	74,26,956	86,03,352	97,96,140	1,10,24,680	1,11,60,040	1,07,46,388	1,12,49,331	1,21,66,993	1,29,67,856
												(III) SUR
Imperial*	—61,510	—35,385	—55,025	—76,269	—78,978	—73,128	—90,460	—81,115	—76,055	—81,358	—81,890	—79,290
Bengal†	53,284	77,748	2,51,431	2,37,037	3,62,284	5,10,712	5,03,700	6,62,533	6,35,106	6,18,233	3,62,015	4,78,883
United Provinces ..	2,96,974	3,81,941	2,95,957	5,45,627	7,42,767	5,96,746	6,72,360	6,02,024	7,06,769	10,11,326	11,99,008	10,05,735
Punjab	1,41,903	1,48,410	1,96,096	2,67,578	2,54,043	3,89,286	1,89,310	4,63,499	5,09,223	6,26,313	5,61,382	8,62,089
Burma	4,91,451	6,16,896	9,75,844	11,78,894	33,06,271	44,94,900	53,64,610	53,99,727	32,27,481	38,48,790	49,16,131	55,12,332
Bihar and Orissa ..	...	...	...	...	...	...	...	...	...	...	...	...
Assam‡	...	12,805	29,427	20,400	1,14,591	1,29,042	2,10,960	2,01,549	1,83,851	2,52,701	2,50,248	3,12,021
Central Provinces ..	3,42,807	5,46,202	6,68,453	6,73,358	6,78,848	1,97,298	21,670	99,748	3,78,212	4,27,140	7,17,066	6,92,844
Coorg	52,807	42,296	40,922	39,117	76,120	51,310	88,190	66,691	87,909	1,01,293	1,31,840	1,09,267
North-West Frontier Province.	...	...	...	...	...	...	...	...	6,498	47,038	41,230	16,033
Ajmer	—6,132	—17,540	—8,722	—5,761	1,172	—2,560	—5,080	—6,136	—5,062	—6,641	2,796	1,656
Baluchistan	...	...	—4,038	5,157	—21,454	—18,178	—11,620	—12,298	—9,768	—3,904	—3,334	—2,117
Andamans	4,728	4,004	29,711	16,525	1,02,889	69,010	1,19,660	1,37,749	62,236	44,333	1,66,260	2,78,365
Imperial Forest College and Research Institute	...	...	...	—28,349	—43,387	—62,080	—70,340	—67,541	—72,745	—63,086	—56,301	—57,867
Forest Surveys (Imperial) ..	—11,911	—63,271	—40,308	—24,271	—23,823	—31,636	—33,560	—33,664	—33,257	—30,951	—33,504	—28,229
Total ..	10,20,595	17,14,106	23,79,748	28,38,730	54,71,343	62,50,722	70,49,400	74,32,766	55,83,402	67,91,227	81,67,355	91,02,222
Madras	1,46,409	11,413	1,85,360	2,32,960	4,29,215	6,04,232	6,48,760	6,24,739	8,33,876	7,78,267	9,06,797	8,43,118
Bombay	5,29,627	3,58,074	6,42,526	11,09,502	14,45,104	10,64,662	2,86,770	5,52,948	6,60,040	6,52,715	9,75,602	11,16,954
GRAND TOTAL ..	16,96,631	20,83,593	32,07,634	42,41,192	73,45,662	79,19,616	79,84,930	86,10,453	70,77,327	82,22,209	1,00,49,754	1,10,62,094

*Includes pay of Inspector-General of Forests, Assistant Inspector-General of Forests, Office Establishment, and undistributable and petty local item and revenues and
†Includes figures up to 1910-11 for districts subsequently transferred—to Bihar and Orissa.
‡Includes figures up to 1910-11 for Eastern Bengal districts subsequently transferred to Bengal.

MENT XIX.

years from 1899-00 to 1917-18 and the average of 6 quinquennial years from 1869-70 to 1898-99.

1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	PROVINCE.
ENUE.													
Rs. 7,255	Rs. ...	Rs. 7,666	Rs. 8,189	Rs. 10,632	Rs. 8,662	Rs. 10,680	Rs. 12,837	Rs. 11,471	Rs. 12,047	Rs. 23,457	Rs. 24,546	Rs. 51,720	Imperial.*
11,18,542	10,65,859	11,97,650	11,84,845	10,80,640	11,67,444	11,22,442	16,00,601	15,16,111	13,04,496	11,45,610	13,38,779	13,76,969	Bengal.†
24,33,428	25,02,664	24,09,745	21,75,406	23,01,164	23,78,439	30,16,160	35,43,963	37,12,487	31,35,235	37,38,831	50,40,932	61,16,697	United Provinces.
17,81,653	16,05,284	14,57,449	12,88,792	10,32,63"	12,17,988	13,10,077	12,39,033	13,54,943	14,38,005	17,27,283	16,87,801	21,17,776	Punjab.
1,03,29,869	98,12,519	86,63,989	91,92,032	93,58,077	1,00,70,117	99,67,594	1,09,22,393	1,14,25,430	97,07,694	96,99,217	1,23,79,531	1,23,61,499	Burma.
...	...	...	...	...	..	4,07,213	4,38,958	4,91,735	5,49,779	5,17,727	5,29,081	7,53,625	Bihar and Orissa.
11,06,096	13,20,592	14,30,447	14,46,368	15,54,732	18,90,635	11,46,320	11,42,091	10,97,969	8,32,877	10,55,052	11,48,621	13,09,956	Assam.‡
24,49,131	24,01,159	22,90,128	20,78,162	20,78,340	21,14,226	25,49,854	31,71,815	31,86,453	32,72,529	32,78,262	33,71,578	34,66,493	Central Provinces and Berar.
2,45,419	2,35,909	2,74,756	2,21,330	2,13,129	2,76,055	2,95,170	2,81,652	3,29,227	1,99,237	4,49,155	4,87,314	4,58,673	Coorg.
1,28,529	1,83,214	2,38,490	1,22,782	1,73,305	2,05,342	1,58,171	2,37,183	2,66,741	2,38,013	1,86,815	2,40,985	3,37,711	North-West Frontier Province.
15,002	18,335	2,,864	27,615	23,990	33,846	26,361	36,596	33,897	31,170	23,445	21,272	27,733	Ajmer.
21,481	21,195	24,829	23,305	18,729	23,212	20,117	20,159	19,088	19,058	21,633	18,277	17,934	Baluchistan.
5,82,511	6,07,027	2,19,822	2,02,018	2,59,477	4,16,773	5,22,160	4,49,925	4,45,811	3,39,248	4,34,784	6,49,711	7,93,656	Andamans.
3,080	4,579	6,137	4,680	4,909	4,080	5,550	7,011	5,806	8,617	6,995	8,199	8,304	Imperial Forest College and Research Institute.
...	...	...	...	...	...	...	...	...	...	...	...	...	Forest Surveys (Imperial).
2,02,21,996	1,97,78,336	1,83,22,972	1,79,78,524	1,80,39,757	1,98,06,819	2,05,57,869	2,31,04,817	2,39,98,069	2,10,88,005	2,23,08,266	2,69,46,627	2,91,9-,746	Total.
29,67,604	32,90,669	38,93,830	38,90,919	41,78,381	38,80,411	41,68,921	41,12,473	42,00,320	39,41,537	41,06,838	45,96,126	54,58,489	Madras.
38,84,993	34,22,481	36,46,177	35,87,356	37,57,656	37,18,224	43,30,569	49,02,510	51,03,156	46,80,242	47,01,263	55,19,177	63,12,022	Bombay.
2,66,74,593	2,64,91,486	2,58,62,979	2,54,56,799	2,60,25,794	2,74,05,454	2,90,57,359	3,22,09,809	3,33,01,545	2,97,09,784	3,11,16,367	3,70,61,930	4,09,69,257	GRAND TOTAL.
PENDITURE.													
83,767	95,472	1,00,204	1,04,183	1,04,332	92,606	94,714	1,04,162	99,296	99,478	1,09,502	1,08,248	90,332	Imperial.*
5,93,509	6,33,386	7,13,394	5,83,981	5,91,099	6,43,285	7,06,"74	6,60,794	6,10,157	6,70,935	5,93,635	6,19,649	7,38,712	Bengal.†
14,05,182	13,06,651	11,94,013	12,22,436	12,09,308	12,37,938	13,63,673	16,29,264	18,96,014	23,17,740	25,66,307	27,35,915	32,04,928	United Provinces.
12,65,664	11,44,403	11,76,606	8,51,627	6,67,752	7,40,542	7,65,146	7,99,176	9,19,177	8,89,302	9,23,878	9,34,662	11,58,048	Punjab.
39,38,063	36,59,753	35,51,532	37,17,217	36,33,618	38,42,709	41,31,162	11,38,584	42,74,901	46,80,447	48,86,241	49,36,588	54,87,179	Burma.
...	...	...	...	...	...	3,00,916	3,75, 91	3,55,648	3,84,371	3,61,550	4,47,972	3,90,716	Bihar & Orissa.
5,93,910	7,07,860	8,00,373	8,91,349	10,12,541	10,87,340	8,11,013	8,08,911	9,10,210	8,9-,339	7,55,214	6,76,033	6,86,627	Assam.‡
13,07,153	13,42,898	15,83,407	17,53,307	15 86,852	15,89,533	1 ,38 379	19,46,735	19,53,129	19,36,569	17,34,.36	17,68,775	18,72,124	Central Provinces and Berar.
95,748	1,02,855	1,04,819	99,595	1,07,822	1,07,679	1,21,174	1,61,544	1,78,514	1,75,833	1,76,033	1,60,492	1,99,941	Coorg.
95,258	9 ,650	88,400	81,413	77,391	72,402	89,436	1,22,173	1,31,023	1,25,539	1,04,795	1,18,070	1,53,875	North-West Frontier Province.
17,131	16,715	18,188	19,016	19,272	19,018	22,343	29 714	23,595	21,733	25,152	26,'34	26,504	Ajmer.
25,743	26,322	31,258	36,586	26,549	26,387	28,947	28,527	25,310	26,000	27,095	26,929	29,999	Baluchistan.
3,35,985	2,95,136	2,20,267	1,80,941	1,94,159	2,26,963	2,61,732	2,55,141	2,71,676	2,58,056	4,30,8,2	4,28,652	3,97,724	Andamans.
80,669	1,37,486	1,58,038	1,83,191	1,96,174	2,19,183	2,63,441	2,68,145	2,98,338	3,31,091	2'8,518	3,05,498	2,89,694	Imperial Forest College and Research Institute.
30,044	30,389	27,060	39,128	41,062	41,140	38,798	35,809	37,743	42,353	48,663	47,407	56,597	Forest Surveys (Imperial).
98,65,826	95,92,956	97,76,649	97,64,900	95,17,951	99,47,805	1,08,67,248	1,13,64,873	1,20,17,761	1,24,57,810	1,30,23,251	1,33,36,524	1,47,83,000	Total.
22,66,602	24,80,660	27,80,857	29,17,261	33,39,635	32,25,801	34,14,882	31,50,482	29,35,817	28,60,685	29,27,318	28,42,678	30,20,349	Madras.
21,26,093	19,90,183	19,55,427	20,43,873	2 ,63,088	20,70,417	26,64,436	26,94,155	25,89,877	24,87,925	26,42,038	25,64,681	33,53,714	Bombay.
1,42,58,521	1,40,63,799	1,45,12,933	1,47,26,034	1,49,20,654	1,52,44,023	1,69,46,566	1,72,07,810	1,75,43,455	1,82,06,450	1,85,92,407	1,87,43,883	2,11,57,063	GRAND TOTAL.
PLUS.													
—76,512	—95,472	—92,538	—95,991	—93,700	—83,944	—84,031	—91,325	—87,825	—87,431	—86,045	—78,702	—38,612	Imperial.*
5,25,033	4,32,473	4,84,256	6,00,864	4,89,541	5,24,159	4,16,068	19,39,807	9,75,954	6,33,561	5,51,975	7,19,130	6,38,257	Bengal.†
10,28,246	11,96,013	12,15,732	9,52,970	10,91,586	11,40,501	16,52,487	19,14,699	18,16,473	8,17,495	11,72,524	23,05,017	29,11,769	United Provinces.
5,17,989	4,60,881	2,80,753	4,37,165	3,64,881	4,77,446	5,44,931	4,39,857	4,35,766	5,48,703	8,03,405	7,53,139	9,59,728	Punjab.
63,91,806	61,52,766	51,12,457	54,74,785	56,74,459	62,27,318	58,36,432	67,83,809	71,50,529	50,27,247	48,12,976	74,42,943	68,74,320	Burma.
...	...	...	...	...	...	1,06,297	63,064	1,36,087	1,65,408	1,56,177	81,109	3,62,909	Bihar & Orissa
5,12,186	6,12,732	6,30,074	5,55,019	5,22,191	8,03,295	3,05,307	3,33,190	1,87,729	—65,462	2,99,838	4,72,588	6,23,329	Assam.‡
11,41,978	10,58,281	7,06,721	3,24,855	4,91,488	5,24,693	7,11,475	12,25 080	12,33,324	13,35,960	15,43,926	16,02,803	15,94,369	Central Provinces and Berar.
1,49,671	1,33,054	1,69,937	1,24,735	1,05,307	1,68,376	1,73,996	1,20,108	1,50,713	23,404	2,72,522	3,26,822	2,58,732	Coorg.
33,271	89,564	1,50,090	41,369	95,914	1,32,850	68,735	1,15,010	1,35,718	1,12,420	82,020	1,22,915	1,83,836	North-West Frontier Province.
—2,129	1,620	11,676	7,699	4,718	13,928	4,018	6,882	10,302	9,437	—1,707	—5,362	1,229	Ajmer.
—4,262	—5,127	—6,429	—13,281	—7,820	—3,175	—8,930	—8,368	—5,322	—6,942	—6,362	—8,652	—12,065	Baluchistan.
2,46,526	3,11,891	62,555	21,077	65,318	1,89,810	2,60,428	1,91,784	1,71,135	81,192	3,052	2,21,059	3,95,932	Andamans.
—77,589	—1,32 907	—1,51,901	—1,78,511	—1,91,265	—2,15,103	—2,57,891	—2,60,834	—2,92,532	—3,22,474	—2,61,723	—2,97,2.9	—2,81,360	Imperial Forest College and Research Institute.
—30,044	—30,389	—27,060	—39,128	—41,062	—41,140	—38,798	—35,809	—37,743	—42,353	—48,663	—47,407	—56,597	Forest Surveys (Imperial).
1,03,56,170	1,01,85,380	85,46,323	82,13,624	85,71,826	98,59,014	96,90,621	1,17,35,944	1,19,80, 08	82,50,165	12,85,015	1,36,10,103	1,44,15,746	Total.
7,01,032	8,10,009	11,12,973	9,73,658	8,38,746	6,54,610	7,51,0?9	9,61,991	12,64,503	10,50,852	11,79,720	17,53,448	24,38,110	Madras.
13,58,900	14,32,298	16,90,750	15,43,483	16,94,568	16,47,807	16,66,133	23,09,084	25,13,279	21,92,317	20,59,225	29,54, 96	29,58,208	Bombay.
1,24,16,072	1,24,27,347	1,13,50,046	1,07,30,765	1,11,05,140	1,21,61,431	1,21,10 793	1,50,01,999	1,57,58,090	1,15,03,334	1,25,2 ,760	1,83,18,047	1,98,12,194	GRAND TOTAL.

charges, on account of In lore and Bangalore. Excludes Home charges.

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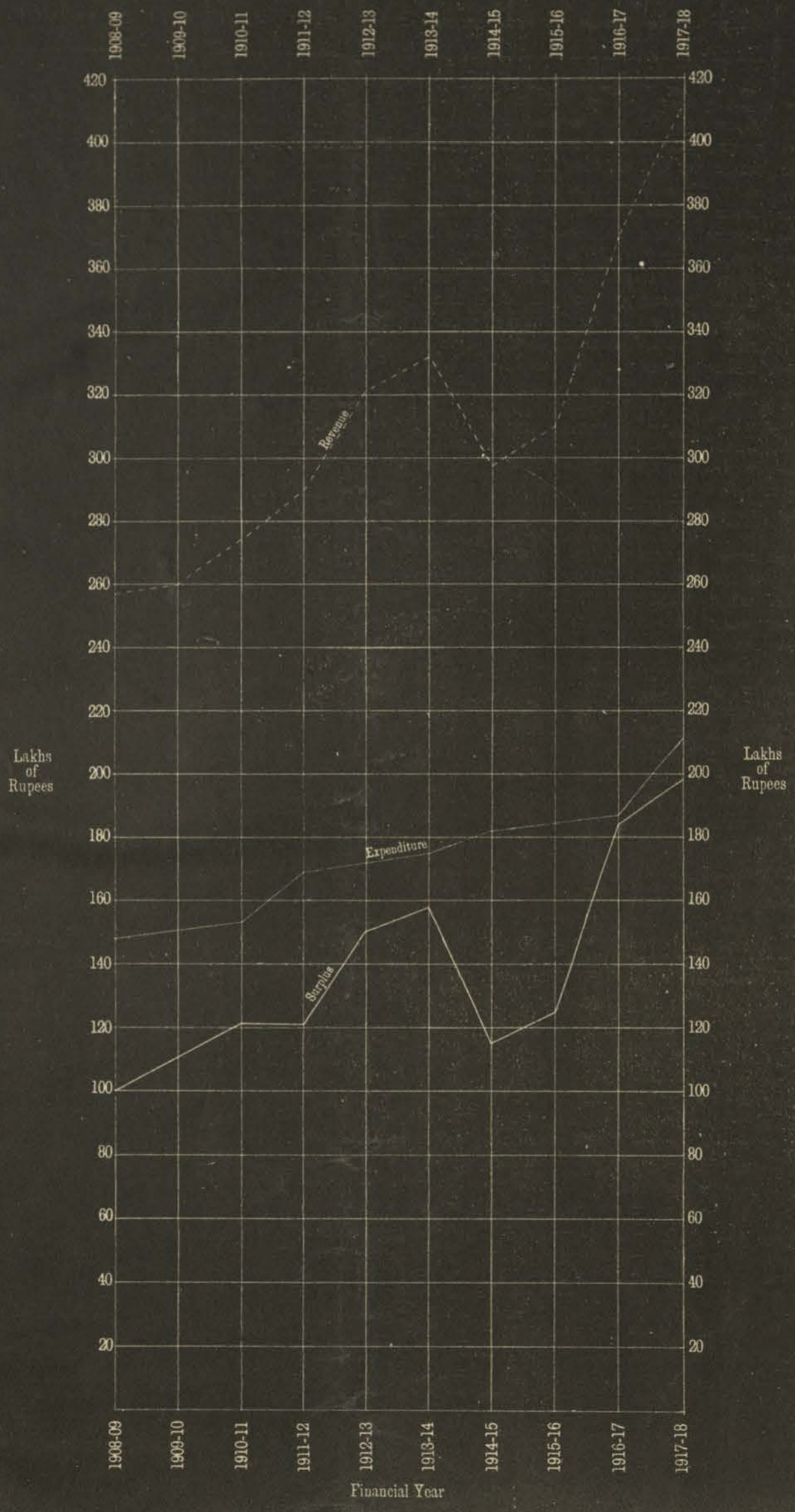
DIAGRAM SHOWING

ANNUAL FOREST REVENUE, EXPENDITURE & SURPLUS.

FOR THE 10 YEARS 1908-09 TO 1917-18



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